

Technical Memorandum

To: Jim Nelson, JPN Corporation

From: Eliza Laws, Senior Environmental Analyst

Date: February 5, 2019

Re: Air Quality/Greenhouse Gas Analysis for the Haun and Holland Mixed Use Center Project, City of Menifee

The following air quality assessment was prepared to evaluate whether the expected criteria air pollutant emissions generated as a result of construction and operation of the proposed Project would cause exceedances of the South Coast Air Quality Management District's (SCAQMD) thresholds for air quality in the Project area. The greenhouse gas (GHG) assessment was prepared to evaluate whether the expected criteria GHG emissions generated as a result of construction and operation of the proposed Project would exceed the SCAQMD draft significance thresholds. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 *et seq.*). The methodology follows the *CEQA Air Quality Handbook* prepared by the SCAQMD for quantification of emissions and evaluation of potential impacts to air resources. As recommended by SCAQMD staff, the **California Emissions Estimator Model**® version 2016.3.2 (CalEEMod) was used to quantify Project-related emissions.

The Project proposes a tentative parcel map to subdivide the 37.06 gross acre site into six (6) commercial parcels for the potential future development of commercial, office, retail and/or industrial uses on approximately 32 net acres at the northeast corner of Holland Road and Haun Road in the City of Menifee, California. The Project site is designated as Economic Development Corridor – Community Core (EDC-CC) in the City's General Plan and as such must also submit a Conceptual Master Plan (CMP) prior to a formal project application. The CMP shows anticipated uses for the Project and how they relate to existing or proposed development on adjacent properties. For this Project, the CMP is being utilized to establish uses and intensities for the impact analysis. The uses analyzed consist of: 12.7 acres of retail, 4.98 acres of office, 4.77 acres of industrial, and 12.61 acres of automobile sales. Consistent with the Project-specific Traffic Impact Analysis Report (TIA), the intensity of development analyzed consists of: 7,500 square feet (SF) of shopping center, 13,300 SF of restaurant space, 39,000 SF of supermarket, a gasoline/service station with 16 pumps and associated convenience market and carwash, 4,500 SF day care center, 4,800 SF of fast food restaurants with drive-thru, 47,200 SF of industrial park, 105,000 SF of automobile sales, and 79,000 SF of general office building.¹

Off-site improvements associated with the Project include the widening of Haun Road east of the centerline adjacent to the Project site and connections to existing water and sewer pipelines in Haun Road. Storm water will drain to the existing Paloma Wash immediately west of Haun Road.

¹ Albert A. Webb Associates, *Traffic Impact Analysis Report, JPN Haun and Holland Commercial Center Project*, October 2018.

▪ Regional Significance Thresholds

The thresholds contained in the *SCAQMD CEQA Air Quality Handbook*² (SCAQMD 1993) are considered regional thresholds and are shown in **Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds**, below. These regional thresholds were developed based on the SCAQMD's treatment of a major stationary source.

Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds

Emission Threshold	Units	VOC	NO _x	CO	SO _x	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operation	lbs/day	55	55	550	150	150	55

Air quality impacts can be described in a short- and long-term perspective. Short-term impacts occur during site grading and Project construction and consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Long-term air quality impacts occur once the Project is in operation.

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 or more acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of this Project's disturbance area (approximately 37 gross acres) and daily material movement (approximately 1,500 cubic yards per day), a Fugitive Dust Control Plan or a Large Operation Notification Form would not be required.

Short-Term Analysis

Short-term emissions from Project construction were evaluated using the CalEEMod version 2016.3.2 program based on construction timing and equipment information provided by the Project applicant. The estimated construction period for the proposed Project is approximately three years and four months, beginning no sooner than September 2019. The default parameters within CalEEMod were used, except as identified below, and these default values generally reflect a worst-case scenario, which means that Project emissions are expected to be equal to or less than the estimated emissions. In addition to the default values used, Project-specific assumptions relevant to model inputs for short-term construction emission estimates used are:

- Construction is anticipated to begin no sooner than September 2019. The Project will be developed in two phases. Phase 1 consists stockpiling of imported soil and the grading and construction of the on-site road, off-site improvement to Haun Road and underground utility installation. Phase 2 consists of mass grading the entire site and full development of parcels one through six on the parcel map. The estimated construction schedule for each phase is provided below:

² South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993. (Available at SCAQMD.)

Phase 1

Construction Activity	Start Date	End Date	Total Working Days
Stockpiling	September 1, 2019	December 31, 2019	87
Grading	January 1, 2020	March 24, 2020	60
Paving	March 4, 2020	March 24, 2020	16

Phase 2

Construction Activity	Start Date	End Date	Total Working Days
Grading	March 25, 2020	July 15, 2020	81
Building Construction	July 16, 2020	December 31, 2022	642
Paving	October 17, 2022	December 31, 2022	55
Architectural Coatings	October 17, 2022	December 31, 2022	55

- The equipment to be used for each activity is shown below and is based on conservative estimates from the Project applicant. Each piece of equipment is assumed to operate 8 hours per day:

Construction Activity	Off-Road Equipment	Phase 1 Unit Amount	Phase 2 Unit Amount
Stockpiling	Crawler Tractor	1	0
	Rubber Tired Dozers	1	0
	Graders	1	0
Grading	Excavators	2	1
	Graders	2	2
	Rubber Tired Loaders	1	0
	Rubber Tired Dozers	0	2
	Scrapers	2	3
	Crawler Tractors	2	0
	Tractor/Loader/Backhoes	0	2
	Tractor/Loader/Backhoes (Curb Machine)	1	0
Building Construction	Cranes	0	2
	Forklifts	0	6
	Excavators	0	2
	Generator Sets	0	2
	Tractors/Loaders/Backhoes	0	5
	Welders	0	3
	Off-Highway Trucks (Concrete Pump)	0	2
Paving	Pavers	2	2
	Paving Equipment	2	2
	Rollers	2	2
Architectural Coatings	Air Compressors	0	2

- Phase 1 includes the stockpiling of approximately 131,800 cubic yards of imported soil and the grading and construction of the on- and off-site road improvements and underground utility installation. Soil import is assumed to occur over a four month period. Based on the CalEEMod default truck capacity of 16 cubic yards, approximately 95 truckloads of soil would be imported daily. The import site is currently unknown. Therefore, the CalEEMod default was utilized which assumes a hauling trip length of 20 miles per trip. Asphalt paving in Phase 1 is approximately 3.9 acres for the proposed on- and off-site roadway improvements.

- Phase 2 includes the mass grading and development of the six proposed parcels. Approximately half of the proposed parcels (16 acres) are assumed to be paved for internal drive aisles and parking lots.
- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions. Two (2) one-way vendor trips were added to the grading, stockpiling, and paving activities to account for water truck trips.

The results of this analysis are summarized below.

Table 2 – Unmitigated Estimated Maximum Daily Construction Emissions

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Construction Thresholds	75	100	550	150	150	55
Phase 1						
Stockpiling	3.40	75.77	15.88	0.17	7.22	3.43
Grading	5.30	62.67	35.05	0.08	3.29	2.35
Paving	2.12	14.32	15.29	0.02	0.94	0.74
Maximum¹	7.42	76.99	50.34	0.17	7.22	3.43
Exceeds Threshold?	No	No	No	No	No	No
Phase 2						
Grading	6.88	77.48	43.14	0.09	8.84	5.74
Building Construction (2020)	9.61	81.22	74.55	0.21	10.82	4.99
Building Construction (2021)	8.72	71.92	71.25	0.21	10.31	4.51
Building Construction (2022)	7.92	64.16	68.48	0.20	9.88	4.11
Paving (2022)	1.94	11.34	15.12	0.02	0.75	0.57
Architectural Coatings (2022)	57.82	4.04	8.66	0.02	1.48	0.56
Maximum²	67.68	81.22	92.26	0.24	12.11	5.74
Exceeds Threshold?	No	No	No	No	No	No

Note: ¹ Maximum emissions are the greater of either stockpiling alone or the sum of grading and paving since these activities overlap. Maximum emission are shown in bold.

² Maximum emissions are the greater of either grading, building construction in 2020, or building construction in 2021 alone or the sum of building construction in 2022, paving and architectural coatings since these activities overlap. Maximum emission are shown in bold.

As shown in the table above, the emissions from construction of Phase 1 and Phase 2 of the Project are below the SCAQMD daily construction thresholds for all criteria pollutants.

Long-Term Analysis

Long-term emissions are evaluated at build-out of a project. The Project is assumed to develop in two phases and be operational in 2022. Mobile source emissions refer to on-road motor vehicle emissions generated from the Project's traffic and based on the trip generation provided in the Project-specific Traffic Impact Analysis.³ Area source emissions from the Project include stationary combustion

³ Albert A. Webb Associates, *Traffic Impact Analysis Report, JPN Haun and Holland Commercial Center Project*, October 2018. Weekend trip generation rates were provided by traffic engineers

emissions of natural gas used for space and water heating (shown in a separate row as energy), yard and landscape maintenance, and an average building square footage to be repainted each year. CalEEMod computes area source emissions based upon default factors and land use assumptions. The Project's energy emissions were adjusted to reflect the 2019 Title 24 standards.⁴

Separate emissions were computed for both the summer and winter.

Table 3 – Unmitigated Estimated Daily Project Operation Emissions (Summer)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	55	55	550	150	150	55
Area	7.27	0.00	0.03	0.00	0.00	0.00
Energy	0.17	1.54	1.30	0.01	0.12	0.12
Mobile	38.65	276.70	299.32	1.29	82.79	22.71
Total	46.09	278.24	300.65	1.30	82.91	22.83
Exceeds Threshold?	No	Yes	No	No	No	No

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Table 4 – Unmitigated Estimated Daily Project Operation Emissions (Winter)

Source	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Thresholds	55	55	550	150	150	55
Area	7.27	0.00	0.03	0.00	0.00	0.00
Energy	0.17	1.54	1.30	0.01	0.12	0.12
Mobile	32.14	272.55	276.70	1.19	82.81	22.73
Total	39.58	274.09	278.03	1.20	82.93	22.85
Exceeds Threshold?	No	Yes	No	No	No	No

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Evaluation of the data presented on the above tables indicates that criteria pollutant emissions from operation of this Project will not exceed the SCAQMD regional daily thresholds during summer or winter, except for NO_x. Please see the subheading "Recommended Mitigation Measures" for mitigation that reduces the Project's operation emissions.

■ Localized Significance Threshold Analysis

Background

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality. Staff at SCAQMD has developed localized significance threshold (LST) methodology⁵ that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short- and long-term). LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The Project is located in SRA 24.

Short-Term Analysis

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with vendor and worker trips are mobile source emissions that occur off site. The emissions analyzed

⁴ The 2019 Title 24 standards are 30 percent more efficient for non-residential uses than the 2016 standards in CalEEMod: https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

⁵ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised July 2008. (Available at <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>, accessed November 2018.)

under the LST methodology are NO₂, CO, PM-10, and PM-2.5. SCAQMD has provided LST lookup tables⁶ to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. Although the Project site is approximately 37 acres, daily disturbance during each Phase of construction will be less. It is anticipated that Phase 1 stockpiling would disturb 1.5 acres per day, Phase 1 grading will disturb five acres per day, and Phase 2 grading will disturb up to 6.5 acres per day during construction of the Project site.⁷ The LST threshold and tables can be used as a screening tool to determine if dispersion modeling would be necessary. The LST Look-Up Tables only provide thresholds for one-acre, two-acre, or five-acre site, the LST for the one-acre site was utilized for Phase 1 and the five acre LST was utilized for Phase 2 to provide a conservative, screening-level analysis.

The LST thresholds are estimated using the maximum daily disturbed area (in acres) and the distance of the Project to the nearest sensitive receptors (in meters). The closest existing sensitive receptors to the Project site are the Santa Rosa Academy (approximately 360 feet (110 meters) northwest of the Project and existing residences east of Interstate 215 (I-215) approximately 375 feet (114 meters) east of the Project site. However, there are planned residential sensitive receptors located west of Haun Road and the Paloma Wash, approximately 300 feet (91 meters) west of the Project site. The LST Look-Up Tables only present thresholds for 25, 50, 100, 200, and 500 meters. Therefore, a receptor distance of 50 meters (164 feet) was used to ensure a conservative analysis. The results are summarized below.

Table 5 – Phase 1 LST Results for Daily Off-Site Construction Emissions

Pollutant	Peak Daily Emissions (lb/day)			
	NO _x	CO	PM-10	PM-2.5
LST Threshold for 1-acre at 50 meters	148	887	12	4
Stockpiling	26.65	8.70	3.52	2.33
Grading	62.39	34.00	3.00	2.27
Paving	14.07	14.65	0.75	0.69
Maximum¹	76.46	48.65	3.75	2.96
Exceeds Threshold?	No	No	No	No

Note: ¹ Maximum emissions are the greater of either stockpiling alone or the sum of grading and paving since these activities overlap.

Table 6 – Phase 2 LST Results for Maximum Daily Construction Emissions

Pollutant	Peak Daily Emissions (lb/day)			
	NO _x	CO	PM-10	PM-2.5
LST Threshold for 5-acre at 50 meters	302	2,178	40	10
Grading	77.19	42.10	8.54	5.65
Building Construction (2020)	55.07	47.67	2.92	2.74
Building Construction (2021)	49.31	46.75	2.51	2.35
Building Construction (2022)	42.90	45.88	2.09	1.96
Paving (2022)	11.12	14.58	0.57	0.52
Maximum¹	77.19	60.46	8.54	5.65
Exceeds Threshold?	No	No	No	No

Note: ¹ Maximum emissions are the greater of either grading, building construction in 2020, or building construction in 2021 alone or the sum of building construction in 2022 and paving since these activities overlap. Architectural coatings not shown because no on-site emissions are generated.

⁶ <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

⁷ <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>

Emissions from construction of the Project will be below the LST established by SCAQMD for the Project.

Long-Term Analysis

According to the LST methodology, LSTs only apply to the operational phase if a project includes stationary sources or attracts mobile sources that may spend long periods of time idling at the site, such as warehouse/transfer facilities. The tentative parcel map includes an industrial parcel on 4.77 acres; for analysis purposes, this parcel is assumed to develop with industrial park uses totaling 47,200 SF. Due to the potential for truck idling associated with this use, a long-term LST analysis was prepared for this portion of the Project.

As stated above, only on-site emissions need to be analyzed; however, the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources nor do they identify emissions for individual land uses. For analysis purposes, the emissions shown in the following table represent five (5) percent of the total Project-related mobile sources. Considering that the industrial park comprises less than two percent of the total daily weekday trips generated by the Project and less than four percent of the total annual vehicle miles traveled (VMT), the five percent assumption is conservative for the on-site emissions from the industrial park land use.

A receptor distance of 50 meters (164 feet) was used to ensure a conservative analysis. The results are summarized below.

Table 7 – Unmitigated LST Results for Daily Operational Emissions

Source	Peak Daily Emissions (lb/day)			
	NO _x	CO	PM-10	PM-2.5
LST Threshold for 5-acre at 50 meters	302	2,178	10	3
On-Site Mobile	13.91	15.03	4.15	1.14
Exceeds Threshold?	No	No	No	No

Therefore, as indicated in the table above, Project-related long-term operational emissions will not exceed any SCAQMD operational LST.

CO Hot Spots Analysis

A carbon monoxide (CO) “hot spot” is a localized concentration of CO that is above the state or federal 1-hour or 8-hour ambient air quality standards (AAQS). Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles.

Based on the information presented below, a CO “hot spot” analysis is not needed to determine whether the addition of Project related traffic will contribute to an exceedance of either the state or federal AAQS for CO emissions in the Project area.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD’s 2003 Air Quality Management Plan (2003 AQMP)⁸ and the Revised 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).⁹ As discussed in the 1992

⁸ SCAQMD, *2003 Air Quality Management Plan*, August 1, 2003. (Available at <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/2003-aqmp>, accessed January 2017.)

⁹ SCAQMD, *Revision to the 1992 Carbon Monoxide Attainment Plan*, September 1994. (Available at SCAQMD.)

CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections (2003 AQMP Appendix V, p. V-4-32). Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of the 1992 CO Plan and subsequent plan updates and air quality management plans.

In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Blvd. and Imperial Highway (Lynwood); Wilshire Blvd. and Veteran Ave. (Westwood); Sunset Blvd. and Highland Ave. (Hollywood); and La Cienega Blvd. and Century Blvd. (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated in the 1992 CO Plan and subsequent 2003 AQMP was that at Wilshire Blvd. and Veteran Ave., which has a daily traffic volume of approximately 100,000 vehicles per day (2003 AQMP Appendix V, Table 4-7). The Los Angeles County Metropolitan Transportation Authority (MTA)¹⁰ evaluated the LOS in the vicinity of the Wilshire Blvd./Veteran Ave. intersection and found it to be level E at peak morning traffic and Level F at peak afternoon traffic (MTA, Exhibit 2-5 and 2-6). This hot spot analysis was conducted at intersections subject to extremes in vehicle volumes and vehicle congestion, and did not predict any violation of CO standards. Considering Project-related traffic as well as existing conditions, ambient growth, and cumulative project traffic without the Holland Overpass, the highest average daily trips would be 82,310 trips in passenger car equivalents on New port Road between Interstate 215 (I-215) northbound ramps and Antelope Road, which is lower than the values studied by SCAQMD.¹¹ Therefore, it can reasonably be concluded that Project-related traffic would not have daily traffic volumes exceeding those at the intersections modeled in the 2003 AQMP, nor would there be any reason unique to the meteorology to conclude that intersections affected by the Project would yield higher CO concentrations if modeled in detail. Thus, the Project would not result in CO hot spots.

■ Greenhouse Gas Analysis

Greenhouse gases (GHG) are not presented in lbs/day like criteria pollutants; they are typically evaluated on an annual basis using the metric system. Several agencies, at various levels, have proposed draft GHG significance thresholds for use in CEQA documents. Although the City has not adopted its own GHG Thresholds of Significance for CEQA, it follows guidance from SCAQMD's 2008 *Interim CEQA GHG Significance Thresholds*.¹² The interim thresholds are a tiered approach; projects may be determined to be less than significant under each tier or require further analysis under subsequent tiers. As identified in the most recent proposal September 2010, the five tiers are: 1) the project is exempt from CEQA; 2) the project is consistent with an applicable GHG emissions reduction plan; 3) project GHG emissions are below screening thresholds of 10,000 metric tonnes per year of carbon dioxide equivalents (MTCO₂E/yr) for industrial projects where the SCAQMD is the lead agency and 3,000 MTCO₂E/yr for all residential or commercial projects; 4) the project achieves performance standards which may include a) achieving a 30 percent or greater reduction under business-as-usual methodology, b) the project includes early implementation of measures in the California Air Resources Board Scoping Plan, or c) the project achieves efficiency targets of 4.8 and 3.0 MTCO₂E/yr per service population for target years 2020 and 2035, respectively; and 5) offsets are implemented for the life of the project, which is defined as 30 years.¹³

¹⁰ Metropolitan Transportation Authority, *2004 Congestion Management Plan for Los Angeles County*, Adopted July 22, 2004. (Available at http://www.metro.net/images/cmp_2004.pdf, accessed March 2017.)

¹¹ Albert A. Webb Associates, *Traffic Impact Analysis Report, JPN Haun and Holland Commercial Center Project, October 2018*.

¹² [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2)

¹³ [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2)

Short-Term Analysis

Construction-Related Emissions

The CalEEMod model calculates GHG emissions from fuel usage by construction equipment and construction-related activities, like construction worker trips, for the Project. The CalEEMod estimate does not analyze emissions from construction-related electricity or natural gas. Construction-related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors which make them too speculative to quantify. The CalEEMod output results for construction-related GHG emissions present the GHG emissions estimates for the Project for CO₂, methane (CH₄), nitrous oxide (N₂O), and CO₂E.¹⁴

Table 8 – Project Construction Equipment GHG Emissions

Phase	Metric Tons per year (MT/yr)			
	Total CO ₂	Total CH ₄	Total N ₂ O	Total CO ₂ E
Phase 1	931.78	0.14	0.00	935.30
Phase 2	6,209.47	0.91	0.00	6,232.94
Total	7,141.25	1.05	0.00	7,168.24
			Amortized¹	238.94

Note: ¹ Construction emissions were amortized over a 30 year period, as recommended by SCAQMD.

Evaluation of **Table 8** indicates that an estimated 7,168.24 MTCO₂E will occur from Project construction equipment over the course of the estimated construction period. Since the 2008 SCAQMD guidance document¹⁵ recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies, the total GHG emissions from Project construction were amortized and are included in **Table 10**, below.

Long-Term Analysis

Area Source Emissions

CalEEMod estimates the GHG emissions associated with area sources which include landscape equipment emissions, architectural coating, consumer products, and hearths. Landscape equipment servicing the Project site create CO₂ resulting from fuel combustion based on the Project's land uses. Consumer products consist of consumer use of solvents and personal care products and architectural coatings consist of an average building square footage to be repainted each year. **Table 10** summarizes the Project's area source emissions.

Energy-Related Emissions

CalEEMod estimates the GHG emissions associated with building electricity and natural gas usage (non-hearth) for each land use type. Electricity and natural gas used in buildings is typically generated at an off-site power plant which indirectly generates GHG emissions. The default CO₂ electricity intensity factors within CalEEMod for Southern California Edison (SCE) were used and reflect 2012 data, which included approximately 21 percent from renewable energy resources.¹⁶ This provides a conservative analysis because the Renewable Portfolio Standard (RPS) requires 33 percent of each utility company's energy sources to be renewable by 2020.¹⁷ The default energy usage values used in CalEEMod are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies and reflect 2016 Title 24 improvements (CalEEMod User's Guide, Appendix

¹⁴ CO₂E is the sum of CO₂ emissions estimated plus the sum of CH₄ and N₂O emissions estimated multiplied by their respective global warming potential (GWP).

¹⁵ [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2)

¹⁶ CalEEMod User's Guide (October 2017), Appendix D, Table 1.2.

¹⁷ <https://www.energy.ca.gov/portfolio/>

A). As stated above, the Project's energy emissions were adjusted to reflect the 2019 Title 24 standards.¹⁸ **Table 9** summarizes the GHG emissions estimates reported by CalEEMod for the Project.

Table 9 – Energy-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Electricity	1,451.60	0.06	0.01	1,456.79
Natural Gas	306.37	0.01	0.01	308.19
Total	1,757.97	0.07	0.02	1,764.98

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

Mobile Source Emissions

CalEEMod estimates the annual GHG emissions from Project-related vehicle usage based on trip generation data contained in defaults or in a project-specific traffic analyses. As stated above, the traffic emissions are based on the trip generation provided in the Project-specific Traffic Impact Analysis.¹⁹

Table 10 shows the mobile source emissions of GHG from the Project.

Solid Waste Emissions

CalEEMod also calculates the GHG emissions associated with the disposal of solid waste into landfills based on default data contained within the model for waste disposal rates, composition, and the characteristics of landfills throughout the state. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. This analysis assumes a solid waste diversion from the landfills of 75 percent as required by Assembly Bill 341. **Table 10** shows the solid waste GHG emissions from the Project.

Water-Related Energy Usage

Electricity is also indirectly used in water supply, treatment, and distribution, as well as wastewater treatment in Southern California and plays a large role in GHG production. There are three processes necessary to supply potable water to urban users (i.e., residential, commercial, and industrial): (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, the wastewater is treated and either reused as reclaimed/recycled water or returned to the environment. CalEEMod calculates the GHG emissions from these processes based on default emissions factors and water/wastewater generation rates for a project's location. Default values were used for electricity intensity factor associated with the supply and conveyance of water from its source which assumes that the water is being imported from Northern California. Water demand was also based on CalEEMod default values. The Project's emissions were adjusted to account for the CalGreen building code which requires a 20 percent reduction in indoor water use. **Table 10** shows the GHG emissions from water-related energy usage for the Project.

Total Project GHG Emissions

As shown on **Table 10 – Total Unmitigated Project-Related GHG Emissions**, using all the emissions quantified above, the total GHG emissions generated from the Project is approximately 17,618.48 MTCO₂E/yr which includes construction-related emissions amortized over a typical project life of 30 years.

¹⁸ The 2019 Title 24 standards are 30 percent more efficient for non-residential uses than the 2016 standards in CalEEMod: https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

¹⁹ Albert A. Webb Associates, *Traffic Impact Analysis Report, JPN Haun and Holland Commercial Center Project*, October 2018. Weekend trip generation rates were provided by traffic engineers

Table 10 – Total Unmitigated Project-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Amortized Construction	--	--	--	238.94
Area	0.01	0.00	0.00	0.01
Energy	1,757.97	0.07	0.02	1,764.98
Mobile	15,184.00	1.07	0.00	15,210.77
Solid Waste	34.35	2.03	0.00	85.10
Water	271.96	1.44	0.04	318.68
Total	17,248.29	4.61	0.06	17,618.48

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

As shown in **Table 10**, above, the total GHG emissions from the Project are above the SCAQMD Tier 3 screening threshold level of 3,000 MTCO₂E/yr. Therefore, the SCAQMD Tier 4 threshold has been applied. The Tier 4 project-level efficiency thresholds are 4.8 and 3.0 MTCO₂E/yr per service population for 2020 and 2035, respectively. Service population is defined as residential and employment population.

The land uses analyzed generate approximately 692 employees. Thus, the Project would achieve an efficiency of 25.5 MTCO₂E/yr per service population. Therefore, the Project will not meet the efficiency thresholds under the SCAQMD Tier 4 requirements. The primary source of Project GHG emissions are from mobile sources, and while some trip reduction strategies can be imposed on employees, the project cannot reasonably impose mitigation on private customers and their vehicles to the extent that would fully mitigate the impact.

▪ Recommended Mitigation Measures

MM AQ 1: Provide information to tenants encouraging trip reduction strategies such as ride share, carpool, public transit, etc. The applicant shall submit documentation to the City prior to occupancy.

MM AQ 2: Any facilities that include heavy-duty trucks shall post signs informing users of requirements limiting idling to five minutes or less pursuant to Title 13 of the California Code of Regulations, Section 2485. The City shall verify signage has been installed prior to occupancy.

MM AQ 3: High efficiency lighting shall be installed at the Project site. Building plans shall identify high-efficiency lighting and shall be verified prior to occupancy.

MM AQ 4: As part of the land use application for any gasoline dispensing facility, a health risk assessment (HRA) shall be prepared in accordance with SCAQMD Rule 1401 and submitted to the City of Menifee Community Development Director prior to future discretionary development approval. The HRA shall be prepared in accordance with SCAQMD Rule 1401. If the HRA identifies health risk in excess of applicable SCAQMD thresholds, mitigation measures shall be incorporated to reduce impacts to the extent feasible.

▪ Impacts after Mitigation

Implementation of mitigation measures **MM AQ 1** through **MM AQ 3** will reduce operational emissions from transportation (NO_x and GHG) and indirect electricity emissions of GHG; however, they do not have quantitative reductions associated with them available in CalEEMod. Therefore, after implementation of mitigation measures, the operational emissions of NO_x and GHG exceed the SCAQMD thresholds.

▪ Conclusion

The conclusion of this analysis indicates that construction of the proposed Project will not exceed criteria pollutant thresholds established by SCAQMD on a regional or localized level without mitigation required. However, the operation of the proposed Project will exceed criteria pollutant thresholds for NO_x established by SCAQMD on a regional level after implementation of mitigation measures. The Project will not create a CO hot spot. The Project's GHG emissions do not meet the SCAQMD efficiency thresholds. Should you have any questions, please contact me at (951) 686-1070.

CALEEMOD OUTPUT FILES

Haun and Holland Mixed Use Center - Phase 1 - Riverside-South Coast County, Summer

Haun and Holland Mixed Use Center - Phase 1

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.93	Acre	3.93	171,190.80	0
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan and stockpile plan

Construction Phase - Per applicant

Off-road Equipment - per applicant; tractor/loaders/backhoe representative of curb machine

Off-road Equipment -

Off-road Equipment - per applicant

Trips and VMT - 2 water trucks trips added per day

Grading - 131,800 cy import

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	Page 2 of 10 60.00	60.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	PhaseEndDate	11/1/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	11/29/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	9/13/2019	12/31/2019
tblConstructionPhase	PhaseStartDate	9/14/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	11/2/2019	3/4/2020
tblGrading	AcresOfGrading	240.00	87.50
tblGrading	AcresOfGrading	87.00	20.00
tblGrading	MaterialImported	0.00	131,800.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

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					
2019	3.3461	75.2787	14.9172	0.1702	9.8730	1.2785	11.1515	4.3012	1.1827	5.4839	0.0000	17,879.0584	17,879.0584	1.6885	0.0000	17,921.2709
2020	7.4264	76.9881	50.3370	0.1072	2.0193	3.1535	5.1728	0.2930	2.9014	3.1943	0.0000	10,404.9373	10,404.9373	3.2066	0.0000	10,485.1019
Maximum	7.4264	76.9881	50.3370	0.1702	9.8730	3.1535	11.1515	4.3012	2.9014	5.4839	0.0000	17,879.0584	17,879.0584	3.2066	0.0000	17,921.2709

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					
2019	3.3461	75.2787	14.9172	0.1702	5.9338	1.2785	7.2123	2.2482	1.1827	3.4309	0.0000	17,879.0584	17,879.0584	1.6885	0.0000	17,921.2709
2020	7.4264	76.9881	50.3370	0.1072	1.0759	3.1535	4.2294	0.1911	2.9014	3.0924	0.0000	10,404.9373	10,404.9373	3.2066	0.0000	10,485.1019
Maximum	7.4264	76.9881	50.3370	0.1702	5.9338	3.1535	7.2123	2.2482	2.9014	3.4309	0.0000	17,879.0584	17,879.0584	3.2066	0.0000	17,921.2709

	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	41.06	0.00	29.91	46.90	0.00	24.83	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	Stockpiling	Site Preparation	9/1/2019	12/31/2019	5	87	
2	Grading	Grading	1/1/2020	3/24/2020	5	60	
3	Paving	Paving	3/4/2020	3/24/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 23.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Stockpiling	Crawler Tractors	1	8.00	212	0.43
Stockpiling	Graders	1	8.00	187	0.41
Stockpiling	Rubber Tired Dozers	1	8.00	247	0.40
Stockpiling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Stockpiling	3	8.00	2.00	16,475.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Stockpiling - 2019

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					6.4577	0.0000	6.4577	3.3656	0.0000	3.3656			0.0000			0.0000
Off-Road	2.2316	26.6481	8.7018	0.0230		1.1014	1.1014		1.0133	1.0133		2,280.3386	2,280.3386	0.7215		2,298.3755
Total	2.2316	26.6481	8.7018	0.0230	6.4577	1.1014	7.5591	3.3656	1.0133	4.3789		2,280.3386	2,280.3386	0.7215		2,298.3755

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	1.0638	48.3759	5.8174	0.1457	3.3131	0.1748	3.4879	0.9082	0.1673	1.0755		15,452.2575	15,452.2575	0.9600		15,476.2585
Vendor	6.6600e-003	0.2277	0.0427	5.3000e-004	0.0128	1.7300e-003	0.0145	3.6900e-003	1.6500e-003	5.3400e-003		55.4605	55.4605	4.4400e-003		55.5715
Worker	0.0441	0.0270	0.3554	9.1000e-004	0.0894	5.5000e-004	0.0900	0.0237	5.1000e-004	0.0242		91.0018	91.0018	2.5500e-003		91.0655
Total	1.1145	48.6306	6.2155	0.1472	3.4153	0.1771	3.5924	0.9356	0.1694	1.1050		15,598.7198	15,598.7198	0.9670		15,622.8954

Mitigated Construction On-Site

Page 6 of 10

	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					2.5185	0.0000	2.5185	1.3126	0.0000	1.3126			0.0000			0.0000
Off-Road	2.2316	26.6481	8.7018	0.0230		1.1014	1.1014		1.0133	1.0133	0.0000	2,280.3386	2,280.3386	0.7215		2,298.3755
Total	2.2316	26.6481	8.7018	0.0230	2.5185	1.1014	3.6199	1.3126	1.0133	2.3258	0.0000	2,280.3386	2,280.3386	0.7215		2,298.3755

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	1.0638	48.3759	5.8174	0.1457	3.3131	0.1748	3.4879	0.9082	0.1673	1.0755		15,452.2575	15,452.2575	0.9600		15,476.2585
Vendor	6.6600e-003	0.2277	0.0427	5.3000e-004	0.0128	1.7300e-003	0.0145	3.6900e-003	1.6500e-003	5.3400e-003		55.4605	55.4605	4.4400e-003		55.5715
Worker	0.0441	0.0270	0.3554	9.1000e-004	0.0894	5.5000e-004	0.0900	0.0237	5.1000e-004	0.0242		91.0018	91.0018	2.5500e-003		91.0655
Total	1.1145	48.6306	6.2155	0.1472	3.4153	0.1771	3.5924	0.9356	0.1694	1.1050		15,598.7198	15,598.7198	0.9670		15,622.8954

3.3 Grading - 2020

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5466	0.0000	1.5466	0.1670	0.0000	0.1670			0.0000			0.0000
Off-Road	5.1687	62.3906	33.9968	0.0790		2.3957	2.3957		2.2041	2.2041		7,646.4097	7,646.4097	2.4730		7,708.2348
Total	5.1687	62.3906	33.9968	0.0790	1.5466	2.3957	3.9423	0.1670	2.2041	2.3710		7,646.4097	7,646.4097	2.4730		7,708.2348

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.1272	0.0752	1.0080	2.7700e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		275.3986	275.3986	7.0600e-003		275.5751
Total	0.1328	0.2810	1.0457	3.2900e-003	0.2923	2.8600e-003	0.2951	0.0778	2.6800e-003	0.0805		330.4768	330.4768	0.0112		330.7566

Mitigated Construction On-Site

Page 8 of 10

	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					0.6032	0.0000	0.6032	0.0651	0.0000	0.0651			0.0000			0.0000
Off-Road	5.1687	62.3906	33.9968	0.0790		2.3957	2.3957		2.2041	2.2041	0.0000	7,646.4097	7,646.4097	2.4730		7,708.2348
Total	5.1687	62.3906	33.9968	0.0790	0.6032	2.3957	2.9989	0.0651	2.2041	2.2692	0.0000	7,646.4097	7,646.4097	2.4730		7,708.2348

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.1272	0.0752	1.0080	2.7700e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		275.3986	275.3986	7.0600e-003		275.5751
Total	0.1328	0.2810	1.0457	3.2900e-003	0.2923	2.8600e-003	0.2951	0.0778	2.6800e-003	0.0805		330.4768	330.4768	0.0112		330.7566

3.4 Paving - 2020

Unmitigated Construction On-Site

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.6864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0430	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
Total	0.0819	0.2509	0.6425	2.1800e-003	0.1805	2.1900e-003	0.1827	0.0482	2.0500e-003	0.0502		220.3174	220.3174	8.3700e-003		220.5265

Mitigated Construction On-Site

Page 10 of 10

	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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.6864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0430	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.0763	0.0451	0.6048	1.6600e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		165.2392	165.2392	4.2400e-003		165.3451
Total	0.0819	0.2509	0.6425	2.1800e-003	0.1805	2.1900e-003	0.1827	0.0482	2.0500e-003	0.0502		220.3174	220.3174	8.3700e-003		220.5265

Haun and Holland Mixed Use Center - Phase 1 - Riverside-South Coast County, Winter

Haun and Holland Mixed Use Center - Phase 1

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.93	Acre	3.93	171,190.80	0
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan and stockpile plan

Construction Phase - Per applicant

Off-road Equipment - per applicant; tractor/loaders/backhoe representative of curb machine

Off-road Equipment -

Off-road Equipment - per applicant

Trips and VMT - 2 water trucks trips added per day

Grading - 131,800 cy import

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	Page 2 of 10 60.00	60.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	PhaseEndDate	11/1/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	11/29/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	9/13/2019	12/31/2019
tblConstructionPhase	PhaseStartDate	9/14/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	11/2/2019	3/4/2020
tblGrading	AcresOfGrading	240.00	87.50
tblGrading	AcresOfGrading	87.00	20.00
tblGrading	MaterialImported	0.00	131,800.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

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					
2019	3.4002	75.7665	15.8784	0.1664	9.8730	1.2816	11.1546	4.3012	1.1857	5.4869	0.0000	17,484.4291	17,484.4291	1.7798	0.0000	17,528.9240
2020	7.4228	76.9901	50.0417	0.1067	2.0193	3.1536	5.1729	0.2930	2.9014	3.1943	0.0000	10,355.4545	10,355.4545	3.2061	0.0000	10,435.6056
Maximum	7.4228	76.9901	50.0417	0.1664	9.8730	3.1536	11.1546	4.3012	2.9014	5.4869	0.0000	17,484.4291	17,484.4291	3.2061	0.0000	17,528.9240

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					
2019	3.4002	75.7665	15.8784	0.1664	5.9338	1.2816	7.2154	2.2482	1.1857	3.4339	0.0000	17,484.4291	17,484.4291	1.7798	0.0000	17,528.9240
2020	7.4228	76.9901	50.0417	0.1067	1.0759	3.1536	4.2295	0.1911	2.9014	3.0925	0.0000	10,355.4545	10,355.4545	3.2061	0.0000	10,435.6056
Maximum	7.4228	76.9901	50.0417	0.1664	5.9338	3.1536	7.2154	2.2482	2.9014	3.4339	0.0000	17,484.4291	17,484.4291	3.2061	0.0000	17,528.9240

	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	41.06	0.00	29.90	46.90	0.00	24.82	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	Stockpiling	Site Preparation	9/1/2019	12/31/2019	5	87	
2	Grading	Grading	1/1/2020	3/24/2020	5	60	
3	Paving	Paving	3/4/2020	3/24/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 23.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Stockpiling	Crawler Tractors	1	8.00	212	0.43
Stockpiling	Graders	1	8.00	187	0.41
Stockpiling	Rubber Tired Dozers	1	8.00	247	0.40
Stockpiling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Stockpiling	3	8.00	2.00	16,475.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Stockpiling - 2019

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					6.4577	0.0000	6.4577	3.3656	0.0000	3.3656			0.0000			0.0000
Off-Road	2.2316	26.6481	8.7018	0.0230		1.1014	1.1014		1.0133	1.0133		2,280.3386	2,280.3386	0.7215		2,298.3755
Total	2.2316	26.6481	8.7018	0.0230	6.4577	1.1014	7.5591	3.3656	1.0133	4.3789		2,280.3386	2,280.3386	0.7215		2,298.3755

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	1.1185	48.8633	6.8390	0.1421	3.3131	0.1779	3.4910	0.9082	0.1702	1.0785		15,069.0614	15,069.0614	1.0512		15,095.3408
Vendor	6.9900e-003	0.2272	0.0496	5.1000e-004	0.0128	1.7500e-003	0.0146	3.6900e-003	1.6700e-003	5.3600e-003		53.3877	53.3877	4.9300e-003		53.5110
Worker	0.0430	0.0280	0.2880	8.2000e-004	0.0894	5.5000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.6414	81.6414	2.2200e-003		81.6968
Total	1.1685	49.1184	7.1767	0.1434	3.4153	0.1802	3.5955	0.9356	0.1724	1.1081		15,204.0905	15,204.0905	1.0583		15,230.5485

Mitigated Construction On-Site

Page 6 of 10

	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					2.5185	0.0000	2.5185	1.3126	0.0000	1.3126			0.0000			0.0000
Off-Road	2.2316	26.6481	8.7018	0.0230		1.1014	1.1014		1.0133	1.0133	0.0000	2,280.3386	2,280.3386	0.7215		2,298.3755
Total	2.2316	26.6481	8.7018	0.0230	2.5185	1.1014	3.6199	1.3126	1.0133	2.3258	0.0000	2,280.3386	2,280.3386	0.7215		2,298.3755

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	1.1185	48.8633	6.8390	0.1421	3.3131	0.1779	3.4910	0.9082	0.1702	1.0785		15,069.0614	15,069.0614	1.0512		15,095.3408
Vendor	6.9900e-003	0.2272	0.0496	5.1000e-004	0.0128	1.7500e-003	0.0146	3.6900e-003	1.6700e-003	5.3600e-003		53.3877	53.3877	4.9300e-003		53.5110
Worker	0.0430	0.0280	0.2880	8.2000e-004	0.0894	5.5000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.6414	81.6414	2.2200e-003		81.6968
Total	1.1685	49.1184	7.1767	0.1434	3.4153	0.1802	3.5955	0.9356	0.1724	1.1081		15,204.0905	15,204.0905	1.0583		15,230.5485

3.3 Grading - 2020

Unmitigated Construction On-Site

Page 7 of 10

	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					1.5466	0.0000	1.5466	0.1670	0.0000	0.1670			0.0000			0.0000
Off-Road	5.1687	62.3906	33.9968	0.0790		2.3957	2.3957		2.2041	2.2041		7,646.4097	7,646.4097	2.4730		7,708.2348
Total	5.1687	62.3906	33.9968	0.0790	1.5466	2.3957	3.9423	0.1670	2.2041	2.3710		7,646.4097	7,646.4097	2.4730		7,708.2348

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.1246	0.0778	0.8154	2.4800e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		247.0590	247.0590	6.1400e-003		247.2124
Total	0.1305	0.2825	0.8595	2.9800e-003	0.2923	2.8700e-003	0.2951	0.0778	2.6900e-003	0.0805		300.0675	300.0675	0.0107		300.3358

Mitigated Construction On-Site

Page 8 of 10

	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					0.6032	0.0000	0.6032	0.0651	0.0000	0.0651			0.0000			0.0000
Off-Road	5.1687	62.3906	33.9968	0.0790		2.3957	2.3957		2.2041	2.2041	0.0000	7,646.4097	7,646.4097	2.4730		7,708.2348
Total	5.1687	62.3906	33.9968	0.0790	0.6032	2.3957	2.9989	0.0651	2.2041	2.2692	0.0000	7,646.4097	7,646.4097	2.4730		7,708.2348

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.1246	0.0778	0.8154	2.4800e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		247.0590	247.0590	6.1400e-003		247.2124
Total	0.1305	0.2825	0.8595	2.9800e-003	0.2923	2.8700e-003	0.2951	0.0778	2.6900e-003	0.0805		300.0675	300.0675	0.0107		300.3358

3.4 Paving - 2020

Unmitigated Construction On-Site

Page 9 of 10

	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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.6864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0430	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
Total	0.0806	0.2514	0.5333	1.9900e-003	0.1805	2.2000e-003	0.1827	0.0482	2.0600e-003	0.0502		201.2439	201.2439	8.2800e-003		201.4509

Mitigated Construction On-Site

Page 10 of 10

	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	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.6864					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0430	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.0748	0.0467	0.4893	1.4900e-003	0.1677	1.0200e-003	0.1687	0.0445	9.3000e-004	0.0454		148.2354	148.2354	3.6800e-003		148.3274
Total	0.0806	0.2514	0.5333	1.9900e-003	0.1805	2.2000e-003	0.1827	0.0482	2.0600e-003	0.0502		201.2439	201.2439	8.2800e-003		201.4509

Haun and Holland Mixed Use Center - Phase 1 - Riverside-South Coast County, Annual

Haun and Holland Mixed Use Center - Phase 1

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	3.93	Acre	3.93	171,190.80	0
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan and stockpile plan

Construction Phase - Per applicant

Off-road Equipment - per applicant; tractor/loaders/backhoe representative of curb machine

Off-road Equipment -

Off-road Equipment - per applicant

Trips and VMT - 2 water trucks trips added per day

Grading - 131,800 cy import

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	PhaseEndDate	11/1/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	11/29/2019	3/24/2020
tblConstructionPhase	PhaseEndDate	9/13/2019	12/31/2019
tblConstructionPhase	PhaseStartDate	9/14/2019	1/1/2020
tblConstructionPhase	PhaseStartDate	11/2/2019	3/4/2020
tblGrading	AcresOfGrading	240.00	87.50
tblGrading	AcresOfGrading	87.00	20.00
tblGrading	MaterialImported	0.00	131,800.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1464	3.3279	0.6659	7.3300e-003	0.4273	0.0557	0.4830	0.1866	0.0515	0.2381	0.0000	698.8809	698.8809	0.0682	0.0000	700.5854
2020	0.1746	1.9878	1.1610	2.6500e-003	0.0564	0.0776	0.1340	7.6600e-003	0.0714	0.0791	0.0000	232.8980	232.8980	0.0725	0.0000	234.7107
Maximum	0.1746	3.3279	1.1610	7.3300e-003	0.4273	0.0776	0.4830	0.1866	0.0714	0.2381	0.0000	698.8809	698.8809	0.0725	0.0000	700.5854

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					
2019	0.1464	3.3279	0.6659	7.3300e-003	0.2560	0.0557	0.3116	0.0973	0.0515	0.1488	0.0000	698.8808	698.8808	0.0682	0.0000	700.5853
2020	0.1746	1.9878	1.1610	2.6500e-003	0.0281	0.0776	0.1057	4.6100e-003	0.0714	0.0760	0.0000	232.8977	232.8977	0.0725	0.0000	234.7104
Maximum	0.1746	3.3279	1.1610	7.3300e-003	0.2560	0.0776	0.3116	0.0973	0.0714	0.1488	0.0000	698.8808	698.8808	0.0725	0.0000	700.5853

	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	41.28	0.00	32.36	47.55	0.00	29.12	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	Stockpiling	Site Preparation	9/1/2019	12/31/2019	5	87	
2	Grading	Grading	1/1/2020	3/24/2020	5	60	
3	Paving	Paving	3/4/2020	3/24/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 23.93

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Stockpiling	Crawler Tractors	1	8.00	212	0.43
Stockpiling	Graders	1	8.00	187	0.41
Stockpiling	Rubber Tired Dozers	1	8.00	247	0.40
Stockpiling	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

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
Stockpiling	3	8.00	2.00	16,475.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Stockpiling - 2019**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					0.2809	0.0000	0.2809	0.1464	0.0000	0.1464	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0971	1.1592	0.3785	1.0000e-003		0.0479	0.0479		0.0441	0.0441	0.0000	89.9879	89.9879	0.0285	0.0000	90.6997
Total	0.0971	1.1592	0.3785	1.0000e-003	0.2809	0.0479	0.3288	0.1464	0.0441	0.1905	0.0000	89.9879	89.9879	0.0285	0.0000	90.6997

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	0.0473	2.1574	0.2721	6.2700e-003	0.1420	7.6600e-003	0.1497	0.0390	7.3300e-003	0.0463	0.0000	603.4341	603.4341	0.0394	0.0000	604.4200
Vendor	2.9000e-004	0.0100	2.0000e-003	2.0000e-005	5.5000e-004	8.0000e-005	6.3000e-004	1.6000e-004	7.0000e-005	2.3000e-004	0.0000	2.1543	2.1543	1.8000e-004	0.0000	2.1589
Worker	1.7300e-003	1.2600e-003	0.0132	4.0000e-005	3.8200e-003	2.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	3.3046	3.3046	9.0000e-005	0.0000	3.3069
Total	0.0493	2.1687	0.2873	6.3300e-003	0.1464	7.7600e-003	0.1542	0.0402	7.4200e-003	0.0476	0.0000	608.8930	608.8930	0.0397	0.0000	609.8857

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					0.1096	0.0000	0.1096	0.0571	0.0000	0.0571	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0971	1.1592	0.3785	1.0000e-003		0.0479	0.0479		0.0441	0.0441	0.0000	89.9878	89.9878	0.0285	0.0000	90.6996
Total	0.0971	1.1592	0.3785	1.0000e-003	0.1096	0.0479	0.1575	0.0571	0.0441	0.1012	0.0000	89.9878	89.9878	0.0285	0.0000	90.6996

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	0.0473	2.1574	0.2721	6.2700e-003	0.1420	7.6600e-003	0.1497	0.0390	7.3300e-003	0.0463	0.0000	603.4341	603.4341	0.0394	0.0000	604.4200
Vendor	2.9000e-004	0.0100	2.0000e-003	2.0000e-005	5.5000e-004	8.0000e-005	6.3000e-004	1.6000e-004	7.0000e-005	2.3000e-004	0.0000	2.1543	2.1543	1.8000e-004	0.0000	2.1589
Worker	1.7300e-003	1.2600e-003	0.0132	4.0000e-005	3.8200e-003	2.0000e-005	3.8500e-003	1.0200e-003	2.0000e-005	1.0400e-003	0.0000	3.3046	3.3046	9.0000e-005	0.0000	3.3069
Total	0.0493	2.1687	0.2873	6.3300e-003	0.1464	7.7600e-003	0.1542	0.0402	7.4200e-003	0.0476	0.0000	608.8930	608.8930	0.0397	0.0000	609.8857

3.3 Grading - 2020

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					0.0464	0.0000	0.0464	5.0100e-003	0.0000	5.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1551	1.8717	1.0199	2.3700e-003		0.0719	0.0719		0.0661	0.0661	0.0000	208.1012	208.1012	0.0673	0.0000	209.7838
Total	0.1551	1.8717	1.0199	2.3700e-003	0.0464	0.0719	0.1183	5.0100e-003	0.0661	0.0711	0.0000	208.1012	208.1012	0.0673	0.0000	209.7838

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	6.2400e-003	1.2200e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.4753	1.4753	1.2000e-004	0.0000	1.4783
Worker	3.4500e-003	2.4200e-003	0.0258	8.0000e-005	8.2400e-003	5.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8969	6.8969	1.7000e-004	0.0000	6.9013
Total	3.6200e-003	8.6600e-003	0.0270	1.0000e-004	8.6200e-003	9.0000e-005	8.7000e-003	2.3000e-003	8.0000e-005	2.3800e-003	0.0000	8.3723	8.3723	2.9000e-004	0.0000	8.3795

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					0.0181	0.0000	0.0181	1.9500e-003	0.0000	1.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1551	1.8717	1.0199	2.3700e-003		0.0719	0.0719		0.0661	0.0661	0.0000	208.1009	208.1009	0.0673	0.0000	209.7835
Total	0.1551	1.8717	1.0199	2.3700e-003	0.0181	0.0719	0.0900	1.9500e-003	0.0661	0.0681	0.0000	208.1009	208.1009	0.0673	0.0000	209.7835

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	6.2400e-003	1.2200e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.1000e-004	1.1000e-004	3.0000e-005	1.4000e-004	0.0000	1.4753	1.4753	1.2000e-004	0.0000	1.4783
Worker	3.4500e-003	2.4200e-003	0.0258	8.0000e-005	8.2400e-003	5.0000e-005	8.2900e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	6.8969	6.8969	1.7000e-004	0.0000	6.9013
Total	3.6200e-003	8.6600e-003	0.0270	1.0000e-004	8.6200e-003	9.0000e-005	8.7000e-003	2.3000e-003	8.0000e-005	2.3800e-003	0.0000	8.3723	8.3723	2.9000e-004	0.0000	8.3795

3.4 Paving - 2020

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	0.0102	0.1055	0.1099	1.7000e-004		5.6500e-003	5.6500e-003		5.1900e-003	5.1900e-003	0.0000	15.0212	15.0212	4.8600e-003	0.0000	15.1426
Paving	5.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0153	0.1055	0.1099	1.7000e-004		5.6500e-003	5.6500e-003		5.1900e-003	5.1900e-003	0.0000	15.0212	15.0212	4.8600e-003	0.0000	15.1426

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	4.0000e-005	1.5600e-003	3.1000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3688	0.3688	3.0000e-005	0.0000	0.3696
Worker	5.2000e-004	3.6000e-004	3.8700e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0345	1.0345	3.0000e-005	0.0000	1.0352
Total	5.6000e-004	1.9200e-003	4.1800e-003	1.0000e-005	1.3300e-003	2.0000e-005	1.3400e-003	3.6000e-004	2.0000e-005	3.8000e-004	0.0000	1.4034	1.4034	6.0000e-005	0.0000	1.4048

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	0.0102	0.1055	0.1099	1.7000e-004		5.6500e-003	5.6500e-003		5.1900e-003	5.1900e-003	0.0000	15.0212	15.0212	4.8600e-003	0.0000	15.1426
Paving	5.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0153	0.1055	0.1099	1.7000e-004		5.6500e-003	5.6500e-003		5.1900e-003	5.1900e-003	0.0000	15.0212	15.0212	4.8600e-003	0.0000	15.1426

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	4.0000e-005	1.5600e-003	3.1000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3688	0.3688	3.0000e-005	0.0000	0.3696
Worker	5.2000e-004	3.6000e-004	3.8700e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0345	1.0345	3.0000e-005	0.0000	1.0352
Total	5.6000e-004	1.9200e-003	4.1800e-003	1.0000e-005	1.3300e-003	2.0000e-005	1.3400e-003	3.6000e-004	2.0000e-005	3.8000e-004	0.0000	1.4034	1.4034	6.0000e-005	0.0000	1.4048

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

Haun and Holland Mixed Use Center - Phase 2

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	184.00	1000sqft	4.22	184,000.00	0
Day-Care Center	4.50	1000sqft	0.10	4,500.00	0
Industrial Park	47.20	1000sqft	1.08	47,200.00	0
Other Non-Asphalt Surfaces	8.92	Acre	8.92	388,555.20	0
Parking Lot	16.00	Acre	16.00	696,960.00	0
Fast Food Restaurant with Drive Thru	4.80	1000sqft	0.11	4,800.00	0
High Turnover (Sit Down Restaurant)	13.30	1000sqft	0.31	13,300.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	4,000.00	0
Regional Shopping Center	7.50	1000sqft	0.17	7,500.00	0
Supermarket	39.00	1000sqft	0.90	39,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

Project Characteristics - Per Applicant

Land Use - Per Site Plan and TIA

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant; Off-Highway trucks represent a concrete pump truck

Off-road Equipment - Per Applicant

Off-road Equipment -

Trips and VMT - 2 Water Truck Trips added for grading and paving

Vehicle Trips - Per TIA for weekday; weekend trip rates from traffic engineers

Energy Use -

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Energy Mitigation - 30% reduction per 2019 Title 24

Water Mitigation - 20% indoor water reduction per CalGreen

Waste Mitigation - 75% reduction per AB 341

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	500.00	642.00
tblConstructionPhase	NumDays	45.00	81.00
tblConstructionPhase	NumDays	35.00	55.00
tblFleetMix	HHD	0.07	0.40
tblFleetMix	LDA	0.55	0.37
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.19	0.13
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.9700e-003	0.04

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

tblFleetMix	MCY	4.5470e-003	3.0880e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.6500e-004	6.5500e-004
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	1.3970e-003	9.4900e-004
tblFleetMix	SBUS	9.3200e-004	6.3300e-004
tblFleetMix	UBUS	1.1600e-003	7.8800e-004
tblGrading	AcresOfGrading	324.00	112.50
tblLandUse	LandUseSquareFeet	2,258.80	4,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	22.00
tblVehicleTrips	DV_TP	58.00	60.00
tblVehicleTrips	DV_TP	21.00	19.00

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

tblVehicleTrips	DV_TP	19.00	16.00
tblVehicleTrips	DV_TP	20.00	17.00
tblVehicleTrips	DV_TP	19.00	15.00
tblVehicleTrips	DV_TP	35.00	20.00
tblVehicleTrips	DV_TP	30.00	27.00
tblVehicleTrips	PB_TP	65.00	63.00
tblVehicleTrips	PB_TP	14.00	10.00
tblVehicleTrips	PB_TP	50.00	55.00
tblVehicleTrips	PB_TP	4.00	10.00
tblVehicleTrips	PB_TP	43.00	49.00
tblVehicleTrips	PB_TP	2.00	10.00
tblVehicleTrips	PB_TP	11.00	41.00
tblVehicleTrips	PB_TP	36.00	42.00
tblVehicleTrips	PR_TP	14.00	15.00
tblVehicleTrips	PR_TP	28.00	30.00
tblVehicleTrips	PR_TP	29.00	26.00
tblVehicleTrips	PR_TP	77.00	74.00
tblVehicleTrips	PR_TP	37.00	34.00
tblVehicleTrips	PR_TP	79.00	75.00
tblVehicleTrips	PR_TP	54.00	39.00
tblVehicleTrips	PR_TP	34.00	31.00
tblVehicleTrips	ST_TR	204.47	194.63
tblVehicleTrips	ST_TR	6.21	6.22
tblVehicleTrips	ST_TR	722.03	722.08
tblVehicleTrips	ST_TR	2.46	18.03
tblVehicleTrips	ST_TR	158.37	158.35
tblVehicleTrips	ST_TR	2.49	4.32

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

tblVehicleTrips	ST_TR	49.97	240.93
tblVehicleTrips	SU_TR	166.88	194.63
tblVehicleTrips	SU_TR	5.83	5.78
tblVehicleTrips	SU_TR	542.72	542.71
tblVehicleTrips	SU_TR	1.05	8.22
tblVehicleTrips	SU_TR	131.84	131.80
tblVehicleTrips	SU_TR	0.73	0.72
tblVehicleTrips	SU_TR	25.24	577.60
tblVehicleTrips	WD_TR	542.60	152.81
tblVehicleTrips	WD_TR	74.06	74.00
tblVehicleTrips	WD_TR	496.12	496.04
tblVehicleTrips	WD_TR	11.03	24.40
tblVehicleTrips	WD_TR	127.15	127.14
tblVehicleTrips	WD_TR	6.83	6.82
tblVehicleTrips	WD_TR	42.70	168.13
tblVehicleTrips	WD_TR	102.24	102.23

2.0 Emissions Summary

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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					
2020	9.6126	80.2190	74.5454	0.2087	13.8093	3.2755	17.0848	6.8573	3.0135	9.8708	0.0000	20,744.12 14	20,744.12 14	2.8701	0.0000	20,815.87 42
2021	8.7154	71.9248	71.2183	0.2061	7.7194	2.5881	10.3076	2.0804	2.4272	4.5076	0.0000	20,489.56 20	20,489.56 20	2.8116	0.0000	20,559.85 12
2022	67.6735	79.5274	92.2608	0.2477	9.1518	2.9575	12.1092	2.4605	2.7784	5.2390	0.0000	24,536.08 11	24,536.08 11	3.5588	0.0000	24,625.05 11
Maximum	67.6735	80.2190	92.2608	0.2477	13.8093	3.2755	17.0848	6.8573	3.0135	9.8708	0.0000	24,536.08 11	24,536.08 11	3.5588	0.0000	24,625.05 11

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					
2020	9.6126	80.2190	74.5454	0.2087	7.7195	3.2755	10.8134	2.7218	3.0135	5.7353	0.0000	20,744.12 14	20,744.12 14	2.8701	0.0000	20,815.87 42
2021	8.7154	71.9248	71.2183	0.2061	7.7194	2.5881	10.3076	2.0804	2.4272	4.5076	0.0000	20,489.56 20	20,489.56 20	2.8116	0.0000	20,559.85 12
2022	67.6735	79.5274	92.2608	0.2477	9.1518	2.9575	12.1092	2.4605	2.7784	5.2390	0.0000	24,536.08 11	24,536.08 11	3.5588	0.0000	24,625.05 10
Maximum	67.6735	80.2190	92.2608	0.2477	9.1518	3.2755	12.1092	2.7218	3.0135	5.7353	0.0000	24,536.08 11	24,536.08 11	3.5588	0.0000	24,625.05 10

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

	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	19.85	0.00	15.88	36.28	0.00	21.08	0.00	0.00	0.00	0.00	0.00	0.00

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Energy	0.1941	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589
Mobile	38.6483	276.6995	299.3228	1.2949	81.9611	0.8275	82.7886	21.9391	0.7754	22.7145		132,800.5523	132,800.5523	8.7268		133,018.7214
Total	46.1108	278.4639	300.8395	1.3055	81.9611	0.9617	82.9228	21.9391	0.9096	22.8487		134,917.5063	134,917.5063	8.7675	0.0388	135,148.2598

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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Energy	0.1696	1.5421	1.2953	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.4923	1,850.4923	0.0355	0.0339	1,861.4888
Mobile	38.6483	276.6995	299.3228	1.2949	81.9611	0.8275	82.7886	21.9391	0.7754	22.7145		132,800.5523	132,800.5523	8.7268		133,018.7214
Total	46.0864	278.2419	300.6530	1.3041	81.9611	0.9449	82.9059	21.9391	0.8927	22.8318		134,651.1193	134,651.1193	8.7624	0.0339	134,880.2898

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

	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	0.05	0.08	0.06	0.10	0.00	1.75	0.02	0.00	1.85	0.07	0.00	0.20	0.20	0.06	12.57	0.20

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/25/2020	7/15/2020	5	81	
2	Building Construction	Building Construction	7/16/2020	12/31/2022	5	642	
3	Paving	Paving	10/17/2022	12/31/2022	5	55	
4	Architectural Coating	Architectural Coating	10/17/2022	12/31/2022	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 24.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,450; Non-Residential Outdoor: 152,150; Striped Parking Area: 65,131 (Architectural Coating – sqft)

OffRoad Equipment

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	3	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Off-Highway Trucks	2	6.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	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
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	22	560.00	228.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	112.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

Water Exposed Area

3.2 Grading - 2020**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					13.5171	0.0000	13.5171	6.7795	0.0000	6.7795			0.0000			0.0000
Off-Road	6.7534	77.1948	42.0951	0.0872		3.2726	3.2726		3.0108	3.0108		8,442.823 1	8,442.823 1	2.7306		8,511.087 7
Total	6.7534	77.1948	42.0951	0.0872	13.5171	3.2726	16.7897	6.7795	3.0108	9.7903		8,442.823 1	8,442.823 1	2.7306		8,511.087 7

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.1272	0.0752	1.0080	2.7700e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		275.3986	275.3986	7.0600e-003		275.5751
Total	0.1328	0.2810	1.0457	3.2900e-003	0.2923	2.8600e-003	0.2951	0.0778	2.6800e-003	0.0805		330.4768	330.4768	0.0112		330.7566

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.2 Grading - 2020**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					5.2717	0.0000	5.2717	2.6440	0.0000	2.6440			0.0000			0.0000
Off-Road	6.7534	77.1948	42.0951	0.0872		3.2726	3.2726		3.0108	3.0108	0.0000	8,442.823 1	8,442.823 1	2.7306		8,511.087 6
Total	6.7534	77.1948	42.0951	0.0872	5.2717	3.2726	8.5443	2.6440	3.0108	5.6548	0.0000	8,442.823 1	8,442.823 1	2.7306		8,511.087 6

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
Vendor	5.5700e-003	0.2058	0.0377	5.2000e-004	0.0128	1.1700e-003	0.0140	3.6900e-003	1.1200e-003	4.8100e-003		55.0782	55.0782	4.1300e-003		55.1815
Worker	0.1272	0.0752	1.0080	2.7700e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		275.3986	275.3986	7.0600e-003		275.5751
Total	0.1328	0.2810	1.0457	3.2900e-003	0.2923	2.8600e-003	0.2951	0.0778	2.6800e-003	0.0805		330.4768	330.4768	0.0112		330.7566

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2020**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	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410		8,296.2789	8,296.2789	2.2410		8,352.3049
Total	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410		8,296.2789	8,296.2789	2.2410		8,352.3049

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
Vendor	0.6355	23.4593	4.2917	0.0596	1.4600	0.1334	1.5935	0.4204	0.1277	0.5480		6,278.9131	6,278.9131	0.4710		6,290.6867
Worker	2.8497	1.6853	22.5800	0.0619	6.2595	0.0379	6.2974	1.6600	0.0349	1.6950		6,168.9294	6,168.9294	0.1581		6,172.8825
Total	3.4852	25.1447	26.8718	0.1215	7.7195	0.1713	7.8908	2.0804	0.1626	2.2430		12,447.8425	12,447.8425	0.6291		12,463.5693

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2020**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	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410	0.0000	8,296.2789	8,296.2789	2.2410		8,352.3049
Total	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410	0.0000	8,296.2789	8,296.2789	2.2410		8,352.3049

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
Vendor	0.6355	23.4593	4.2917	0.0596	1.4600	0.1334	1.5935	0.4204	0.1277	0.5480		6,278.9131	6,278.9131	0.4710		6,290.6867
Worker	2.8497	1.6853	22.5800	0.0619	6.2595	0.0379	6.2974	1.6600	0.0349	1.6950		6,168.9294	6,168.9294	0.1581		6,172.8825
Total	3.4852	25.1447	26.8718	0.1215	7.7195	0.1713	7.8908	2.0804	0.1626	2.2430		12,447.8425	12,447.8425	0.6291		12,463.5693

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2021**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	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548		8,296.8336	8,296.8336	2.2237		8,352.4258
Total	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548		8,296.8336	8,296.8336	2.2237		8,352.4258

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
Vendor	0.5323	21.0989	3.7644	0.0591	1.4600	0.0401	1.5001	0.4204	0.0384	0.4587		6,230.1233	6,230.1233	0.4457		6,241.2659
Worker	2.6549	1.5125	20.7039	0.0599	6.2595	0.0369	6.2964	1.6600	0.0340	1.6940		5,962.6051	5,962.6051	0.1422		5,966.1594
Total	3.1872	22.6114	24.4683	0.1189	7.7194	0.0770	7.7965	2.0804	0.0724	2.1528		12,192.7284	12,192.7284	0.5879		12,207.4254

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2021**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	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548	0.0000	8,296.8336	8,296.8336	2.2237		8,352.4258
Total	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548	0.0000	8,296.8336	8,296.8336	2.2237		8,352.4258

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
Vendor	0.5323	21.0989	3.7644	0.0591	1.4600	0.0401	1.5001	0.4204	0.0384	0.4587		6,230.1233	6,230.1233	0.4457		6,241.2659
Worker	2.6549	1.5125	20.7039	0.0599	6.2595	0.0369	6.2964	1.6600	0.0340	1.6940		5,962.6051	5,962.6051	0.1422		5,966.1594
Total	3.1872	22.6114	24.4683	0.1189	7.7194	0.0770	7.7965	2.0804	0.0724	2.1528		12,192.7284	12,192.7284	0.5879		12,207.4254

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2022**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	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649		8,299.051 2	8,299.051 2	2.2135		8,354.387 4
Total	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649		8,299.051 2	8,299.051 2	2.2135		8,354.387 4

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
Vendor	0.4963	19.9062	3.5013	0.0586	1.4599	0.0337	1.4937	0.4203	0.0323	0.4526		6,177.094 1	6,177.094 1	0.4221		6,187.646 9
Worker	2.4834	1.3611	19.0966	0.0577	6.2595	0.0359	6.2954	1.6600	0.0331	1.6931		5,744.737 8	5,744.737 8	0.1277		5,747.930 5
Total	2.9797	21.2674	22.5979	0.1162	7.7194	0.0697	7.7890	2.0804	0.0653	2.1457		11,921.83 19	11,921.83 19	0.5498		11,935.57 74

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.3 Building Construction - 2022**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	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649	0.0000	8,299.051 2	8,299.051 2	2.2135		8,354.387 4
Total	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649	0.0000	8,299.051 2	8,299.051 2	2.2135		8,354.387 4

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
Vendor	0.4963	19.9062	3.5013	0.0586	1.4599	0.0337	1.4937	0.4203	0.0323	0.4526		6,177.094 1	6,177.094 1	0.4221		6,187.646 9
Worker	2.4834	1.3611	19.0966	0.0577	6.2595	0.0359	6.2954	1.6600	0.0331	1.6931		5,744.737 8	5,744.737 8	0.1277		5,747.930 5
Total	2.9797	21.2674	22.5979	0.1162	7.7194	0.0697	7.7890	2.0804	0.0653	2.1457		11,921.83 19	11,921.83 19	0.5498		11,935.57 74

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.4 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.7622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.8650	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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
Vendor	4.3500e-003	0.1746	0.0307	5.1000e-004	0.0128	3.0000e-004	0.0131	3.6900e-003	2.8000e-004	3.9700e-003		54.1850	54.1850	3.7000e-003		54.2776
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	0.0709	0.2111	0.5422	2.0500e-003	0.1805	1.2600e-003	0.1817	0.0482	1.1700e-003	0.0493		208.0620	208.0620	7.1200e-003		208.2400

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.4 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.7622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.8650	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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
Vendor	4.3500e-003	0.1746	0.0307	5.1000e-004	0.0128	3.0000e-004	0.0131	3.6900e-003	2.8000e-004	3.9700e-003		54.1850	54.1850	3.7000e-003		54.2776
Worker	0.0665	0.0365	0.5115	1.5400e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		153.8769	153.8769	3.4200e-003		153.9624
Total	0.0709	0.2111	0.5422	2.0500e-003	0.1805	1.2600e-003	0.1817	0.0482	1.1700e-003	0.0493		208.0620	208.0620	7.1200e-003		208.2400

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.5 Architectural Coating - 2022**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	56.7772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5454	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179		750.5281	750.5281	0.0489		751.7497
Total	57.3226	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179		750.5281	750.5281	0.0489		751.7497

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
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
Worker	0.4967	0.2722	3.8193	0.0115	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,148.9476	1,148.9476	0.0255		1,149.5861
Total	0.4967	0.2722	3.8193	0.0115	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,148.9476	1,148.9476	0.0255		1,149.5861

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

3.5 Architectural Coating - 2022**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	56.7772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5454	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179	0.0000	750.5281	750.5281	0.0489		751.7497
Total	57.3226	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179	0.0000	750.5281	750.5281	0.0489		751.7497

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
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
Worker	0.4967	0.2722	3.8193	0.0115	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,148.9476	1,148.9476	0.0255		1,149.5861
Total	0.4967	0.2722	3.8193	0.0115	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,148.9476	1,148.9476	0.0255		1,149.5861

4.0 Operational Detail - Mobile

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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	38.6483	276.6995	299.3228	1.2949	81.9611	0.8275	82.7886	21.9391	0.7754	22.7145		132,800.5523	132,800.5523	8.7268		133,018.7214
Unmitigated	38.6483	276.6995	299.3228	1.2949	81.9611	0.8275	82.7886	21.9391	0.7754	22.7145		132,800.5523	132,800.5523	8.7268		133,018.7214

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,444.96	3,114.08	3114.08	1,669,646	1,669,646
Day-Care Center	333.00	27.99	26.01	377,654	377,654
Fast Food Restaurant with Drive Thru	2,380.99	3,465.98	2605.01	2,435,803	2,435,803
General Office Building	4,489.60	3,317.52	1512.48	11,986,492	11,986,492
High Turnover (Sit Down Restaurant)	1,690.96	2,106.06	1752.94	2,189,625	2,189,625
Industrial Park	321.90	203.90	33.98	987,681	987,681
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,260.98	1,806.98	4332.00	2,717,545	2,717,545
Supermarket	3,986.97	6,926.01	6491.16	5,734,688	5,734,688
Total	16,909.36	20,968.52	19,867.66	28,099,134	28,099,134

4.3 Trip Type Information

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	15	22	63
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	30	60	10
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	26	19	55
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	74	16	10
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	34	17	49
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	75	15	10
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	39	20	41
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	31	27	42

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Day-Care Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Fast Food Restaurant with Drive Thru	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
General Office Building	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
High Turnover (Sit Down Restaurant)	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Industrial Park	0.370507	0.025032	0.126348	0.000000	0.000000	0.037300	0.034200	0.400500	0.000949	0.000788	0.003088	0.000633	0.000655
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Regional Shopping Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Supermarket	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.1696	1.5421	1.2953	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.4923	1,850.4923	0.0355	0.0339	1,861.4888
NaturalGas Unmitigated	0.1941	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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	lb/day										lb/day					
Convenience Market With Gas Pumps	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Day-Care Center	108	1.1600e-003	0.0106	8.8900e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004		12.7059	12.7059	2.4000e-004	2.3000e-004	12.7814
Fast Food Restaurant with Drive Thru	3595.92	0.0388	0.3525	0.2961	2.1200e-003		0.0268	0.0268		0.0268	0.0268		423.0498	423.0498	8.1100e-003	7.7600e-003	425.5638
General Office Building	1749.26	0.0189	0.1715	0.1441	1.0300e-003		0.0130	0.0130		0.0130	0.0130		205.7953	205.7953	3.9400e-003	3.7700e-003	207.0183
High Turnover (Sit Down Restaurant)	9963.7	0.1075	0.9768	0.8205	5.8600e-003		0.0742	0.0742		0.0742	0.0742		1,172.2005	1,172.2005	0.0225	0.0215	1,179.1663
Industrial Park	448.723	4.8400e-003	0.0440	0.0370	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7910	52.7910	1.0100e-003	9.7000e-004	53.1047
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	45.6164	4.9000e-004	4.4700e-003	3.7600e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		5.3666	5.3666	1.0000e-004	1.0000e-004	5.3985
Supermarket	2057.92	0.0222	0.2018	0.1695	1.2100e-003		0.0153	0.0153		0.0153	0.0153		242.1080	242.1080	4.6400e-003	4.4400e-003	243.5467
Total		0.1940	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0180164	1.9000e-004	1.7700e-003	1.4800e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		2.1196	2.1196	4.0000e-005	4.0000e-005	2.1322
Day-Care Center	0.0822205	8.9000e-004	8.0600e-003	6.7700e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.6730	9.6730	1.9000e-004	1.8000e-004	9.7305
Fast Food Restaurant with Drive Thru	3.2895	0.0355	0.3225	0.2709	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.9999	386.9999	7.4200e-003	7.0900e-003	389.2997
General Office Building	1.22448	0.0132	0.1201	0.1008	7.2000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003		144.0567	144.0567	2.7600e-003	2.6400e-003	144.9128
High Turnover (Sit Down Restaurant)	9.11465	0.0983	0.8936	0.7506	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,072.3122	1,072.3122	0.0206	0.0197	1,078.6845
Industrial Park	0.314106	3.3900e-003	0.0308	0.0259	1.8000e-004		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003		36.9537	36.9537	7.1000e-004	6.8000e-004	37.1733
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	0.0337808	3.6000e-004	3.3100e-003	2.7800e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9742	3.9742	8.0000e-005	7.0000e-005	3.9978
Supermarket	1.65242	0.0178	0.1620	0.1361	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.4029	194.4029	3.7300e-003	3.5600e-003	195.5581
Total		0.1696	1.5421	1.2953	9.2400e-003		0.1172	0.1172		0.1172	0.1172		1,850.4922	1,850.4922	0.0355	0.0339	1,861.4888

6.0 Area Detail**6.1 Mitigation Measures Area**

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

	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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Unmitigated	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

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	0.8556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2500e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Total	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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	0.8556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2500e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Total	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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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Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Summer

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

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

Haun and Holland Mixed Use Center - Phase 2**Riverside-South Coast County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	184.00	1000sqft	4.22	184,000.00	0
Day-Care Center	4.50	1000sqft	0.10	4,500.00	0
Industrial Park	47.20	1000sqft	1.08	47,200.00	0
Other Non-Asphalt Surfaces	8.92	Acre	8.92	388,555.20	0
Parking Lot	16.00	Acre	16.00	696,960.00	0
Fast Food Restaurant with Drive Thru	4.80	1000sqft	0.11	4,800.00	0
High Turnover (Sit Down Restaurant)	13.30	1000sqft	0.31	13,300.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	4,000.00	0
Regional Shopping Center	7.50	1000sqft	0.17	7,500.00	0
Supermarket	39.00	1000sqft	0.90	39,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

Project Characteristics - Per Applicant

Land Use - Per Site Plan and TIA

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant; Off-Highway trucks represent a concrete pump truck

Off-road Equipment - Per Applicant

Off-road Equipment -

Trips and VMT - 2 Water Truck Trips added for grading and paving

Vehicle Trips - Per TIA for weekday; weekend trip rates from traffic engineers

Energy Use -

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Energy Mitigation - 30% reduction per 2019 Title 24

Water Mitigation - 20% indoor water reduction per CalGreen

Waste Mitigation - 75% reduction per AB 341

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	500.00	642.00
tblConstructionPhase	NumDays	45.00	81.00
tblConstructionPhase	NumDays	35.00	55.00
tblFleetMix	HHD	0.07	0.40
tblFleetMix	LDA	0.55	0.37
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.19	0.13
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.9700e-003	0.04

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

tblFleetMix	MCY	4.5470e-003	3.0880e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.6500e-004	6.5500e-004
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	1.3970e-003	9.4900e-004
tblFleetMix	SBUS	9.3200e-004	6.3300e-004
tblFleetMix	UBUS	1.1600e-003	7.8800e-004
tblGrading	AcresOfGrading	324.00	112.50
tblLandUse	LandUseSquareFeet	2,258.80	4,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	22.00
tblVehicleTrips	DV_TP	58.00	60.00
tblVehicleTrips	DV_TP	21.00	19.00

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

tblVehicleTrips	DV_TP	19.00	16.00
tblVehicleTrips	DV_TP	20.00	17.00
tblVehicleTrips	DV_TP	19.00	15.00
tblVehicleTrips	DV_TP	35.00	20.00
tblVehicleTrips	DV_TP	30.00	27.00
tblVehicleTrips	PB_TP	65.00	63.00
tblVehicleTrips	PB_TP	14.00	10.00
tblVehicleTrips	PB_TP	50.00	55.00
tblVehicleTrips	PB_TP	4.00	10.00
tblVehicleTrips	PB_TP	43.00	49.00
tblVehicleTrips	PB_TP	2.00	10.00
tblVehicleTrips	PB_TP	11.00	41.00
tblVehicleTrips	PB_TP	36.00	42.00
tblVehicleTrips	PR_TP	14.00	15.00
tblVehicleTrips	PR_TP	28.00	30.00
tblVehicleTrips	PR_TP	29.00	26.00
tblVehicleTrips	PR_TP	77.00	74.00
tblVehicleTrips	PR_TP	37.00	34.00
tblVehicleTrips	PR_TP	79.00	75.00
tblVehicleTrips	PR_TP	54.00	39.00
tblVehicleTrips	PR_TP	34.00	31.00
tblVehicleTrips	ST_TR	204.47	194.63
tblVehicleTrips	ST_TR	6.21	6.22
tblVehicleTrips	ST_TR	722.03	722.08
tblVehicleTrips	ST_TR	2.46	18.03
tblVehicleTrips	ST_TR	158.37	158.35
tblVehicleTrips	ST_TR	2.49	4.32

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

tblVehicleTrips	ST_TR	49.97	240.93
tblVehicleTrips	SU_TR	166.88	194.63
tblVehicleTrips	SU_TR	5.83	5.78
tblVehicleTrips	SU_TR	542.72	542.71
tblVehicleTrips	SU_TR	1.05	8.22
tblVehicleTrips	SU_TR	131.84	131.80
tblVehicleTrips	SU_TR	0.73	0.72
tblVehicleTrips	SU_TR	25.24	577.60
tblVehicleTrips	WD_TR	542.60	152.81
tblVehicleTrips	WD_TR	74.06	74.00
tblVehicleTrips	WD_TR	496.12	496.04
tblVehicleTrips	WD_TR	11.03	24.40
tblVehicleTrips	WD_TR	127.15	127.14
tblVehicleTrips	WD_TR	6.83	6.82
tblVehicleTrips	WD_TR	42.70	168.13
tblVehicleTrips	WD_TR	102.24	102.23

2.0 Emissions Summary

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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					
2020	9.5885	80.1543	70.9645	0.2001	13.8093	3.2755	17.0848	6.8573	3.0135	9.8708	0.0000	19,873.37 44	19,873.37 44	2.9026	0.0000	19,945.93 83
2021	8.6989	71.7948	67.9152	0.1977	7.7194	2.5893	10.3088	2.0804	2.4283	4.5087	0.0000	19,641.70 69	19,641.70 69	2.8439	0.0000	19,712.80 49
2022	67.6574	79.3826	88.3764	0.2382	9.1518	2.9586	12.1103	2.4605	2.7795	5.2400	0.0000	23,575.54 20	23,575.54 20	3.5876	0.0000	23,665.23 26
Maximum	67.6574	80.1543	88.3764	0.2382	13.8093	3.2755	17.0848	6.8573	3.0135	9.8708	0.0000	23,575.54 20	23,575.54 20	3.5876	0.0000	23,665.23 26

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					
2020	9.5885	80.1543	70.9645	0.2001	7.7195	3.2755	10.8150	2.7218	3.0135	5.7353	0.0000	19,873.37 44	19,873.37 44	2.9026	0.0000	19,945.93 83
2021	8.6989	71.7948	67.9152	0.1977	7.7194	2.5893	10.3088	2.0804	2.4283	4.5087	0.0000	19,641.70 69	19,641.70 69	2.8439	0.0000	19,712.80 49
2022	67.6574	79.3826	88.3764	0.2382	9.1518	2.9586	12.1103	2.4605	2.7795	5.2400	0.0000	23,575.54 20	23,575.54 20	3.5876	0.0000	23,665.23 26
Maximum	67.6574	80.1543	88.3764	0.2382	9.1518	3.2755	12.1103	2.7218	3.0135	5.7353	0.0000	23,575.54 20	23,575.54 20	3.5876	0.0000	23,665.23 26

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

	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	19.85	0.00	15.87	36.28	0.00	21.08	0.00	0.00	0.00	0.00	0.00	0.00

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Energy	0.1941	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589
Mobile	32.1439	272.5507	276.7020	1.1909	81.9611	0.8442	82.8053	21.9391	0.7913	22.7304		122,226.1937	122,226.1937	9.3832		122,460.7736
Total	39.6064	274.3151	278.2187	1.2015	81.9611	0.9784	82.9395	21.9391	0.9255	22.8646		124,343.1476	124,343.1476	9.4240	0.0388	124,590.3120

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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Energy	0.1696	1.5421	1.2953	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.4923	1,850.4923	0.0355	0.0339	1,861.4888
Mobile	32.1439	272.5507	276.7020	1.1909	81.9611	0.8442	82.8053	21.9391	0.7913	22.7304		122,226.1937	122,226.1937	9.3832		122,460.7736
Total	39.5820	274.0931	278.0322	1.2001	81.9611	0.9616	82.9226	21.9391	0.9087	22.8478		124,076.7606	124,076.7606	9.4189	0.0339	124,322.3420

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

	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	0.06	0.08	0.07	0.11	0.00	1.72	0.02	0.00	1.82	0.07	0.00	0.21	0.21	0.05	12.57	0.22

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/25/2020	7/15/2020	5	81	
2	Building Construction	Building Construction	7/16/2020	12/31/2022	5	642	
3	Paving	Paving	10/17/2022	12/31/2022	5	55	
4	Architectural Coating	Architectural Coating	10/17/2022	12/31/2022	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 24.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,450; Non-Residential Outdoor: 152,150; Striped Parking Area: 65,131 (Architectural Coating – sqft)

OffRoad Equipment

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	3	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Off-Highway Trucks	2	6.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	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
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	22	560.00	228.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	112.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

Water Exposed Area

3.2 Grading - 2020**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					13.5171	0.0000	13.5171	6.7795	0.0000	6.7795			0.0000			0.0000
Off-Road	6.7534	77.1948	42.0951	0.0872		3.2726	3.2726		3.0108	3.0108		8,442.823 1	8,442.823 1	2.7306		8,511.087 7
Total	6.7534	77.1948	42.0951	0.0872	13.5171	3.2726	16.7897	6.7795	3.0108	9.7903		8,442.823 1	8,442.823 1	2.7306		8,511.087 7

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.1246	0.0778	0.8154	2.4800e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		247.0590	247.0590	6.1400e-003		247.2124
Total	0.1305	0.2825	0.8595	2.9800e-003	0.2923	2.8700e-003	0.2951	0.0778	2.6900e-003	0.0805		300.0675	300.0675	0.0107		300.3358

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.2 Grading - 2020**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					5.2717	0.0000	5.2717	2.6440	0.0000	2.6440			0.0000			0.0000
Off-Road	6.7534	77.1948	42.0951	0.0872		3.2726	3.2726		3.0108	3.0108	0.0000	8,442.823 1	8,442.823 1	2.7306		8,511.087 6
Total	6.7534	77.1948	42.0951	0.0872	5.2717	3.2726	8.5443	2.6440	3.0108	5.6548	0.0000	8,442.823 1	8,442.823 1	2.7306		8,511.087 6

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
Vendor	5.8800e-003	0.2047	0.0441	5.0000e-004	0.0128	1.1800e-003	0.0140	3.6900e-003	1.1300e-003	4.8200e-003		53.0086	53.0086	4.6000e-003		53.1235
Worker	0.1246	0.0778	0.8154	2.4800e-003	0.2794	1.6900e-003	0.2811	0.0741	1.5600e-003	0.0757		247.0590	247.0590	6.1400e-003		247.2124
Total	0.1305	0.2825	0.8595	2.9800e-003	0.2923	2.8700e-003	0.2951	0.0778	2.6900e-003	0.0805		300.0675	300.0675	0.0107		300.3358

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2020**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	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410		8,296.2789	8,296.2789	2.2410		8,352.3049
Total	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410		8,296.2789	8,296.2789	2.2410		8,352.3049

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
Vendor	0.6703	23.3365	5.0251	0.0573	1.4600	0.1350	1.5950	0.4204	0.1292	0.5495		6,042.9750	6,042.9750	0.5241		6,056.0765
Worker	2.7908	1.7435	18.2657	0.0555	6.2595	0.0379	6.2974	1.6600	0.0349	1.6950		5,534.1205	5,534.1205	0.1375		5,537.5569
Total	3.4611	25.0800	23.2908	0.1129	7.7195	0.1729	7.8924	2.0804	0.1641	2.2445		11,577.0954	11,577.0954	0.6615		11,593.6334

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2020**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	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410	0.0000	8,296.2789	8,296.2789	2.2410		8,352.3049
Total	6.1274	55.0744	47.6737	0.0872		2.9226	2.9226		2.7410	2.7410	0.0000	8,296.2789	8,296.2789	2.2410		8,352.3049

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
Vendor	0.6703	23.3365	5.0251	0.0573	1.4600	0.1350	1.5950	0.4204	0.1292	0.5495		6,042.9750	6,042.9750	0.5241		6,056.0765
Worker	2.7908	1.7435	18.2657	0.0555	6.2595	0.0379	6.2974	1.6600	0.0349	1.6950		5,534.1205	5,534.1205	0.1375		5,537.5569
Total	3.4611	25.0800	23.2908	0.1129	7.7195	0.1729	7.8924	2.0804	0.1641	2.2445		11,577.0954	11,577.0954	0.6615		11,593.6334

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2021**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	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548		8,296.8336	8,296.8336	2.2237		8,352.4258
Total	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548		8,296.8336	8,296.8336	2.2237		8,352.4258

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
Vendor	0.5653	20.9173	4.4531	0.0569	1.4600	0.0413	1.5013	0.4204	0.0395	0.4599		5,995.7894	5,995.7894	0.4966		6,008.2050
Worker	2.6054	1.5642	16.7121	0.0537	6.2595	0.0369	6.2964	1.6600	0.0340	1.6940		5,349.0839	5,349.0839	0.1236		5,352.1740
Total	3.1708	22.4814	21.1652	0.1105	7.7194	0.0782	7.7977	2.0804	0.0735	2.1539		11,344.8733	11,344.8733	0.6202		11,360.3791

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2021**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	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548	0.0000	8,296.8336	8,296.8336	2.2237		8,352.4258
Total	5.5281	49.3133	46.7500	0.0872		2.5111	2.5111		2.3548	2.3548	0.0000	8,296.8336	8,296.8336	2.2237		8,352.4258

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
Vendor	0.5653	20.9173	4.4531	0.0569	1.4600	0.0413	1.5013	0.4204	0.0395	0.4599		5,995.7894	5,995.7894	0.4966		6,008.2050
Worker	2.6054	1.5642	16.7121	0.0537	6.2595	0.0369	6.2964	1.6600	0.0340	1.6940		5,349.0839	5,349.0839	0.1236		5,352.1740
Total	3.1708	22.4814	21.1652	0.1105	7.7194	0.0782	7.7977	2.0804	0.0735	2.1539		11,344.8733	11,344.8733	0.6202		11,360.3791

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2022**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	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649		8,299.051 2	8,299.051 2	2.2135		8,354.387 4
Total	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649		8,299.051 2	8,299.051 2	2.2135		8,354.387 4

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
Vendor	0.5279	19.7069	4.1569	0.0564	1.4599	0.0348	1.4947	0.4203	0.0333	0.4536		5,943.438 7	5,943.438 7	0.4708		5,955.209 2
Worker	2.4442	1.4071	15.3913	0.0517	6.2595	0.0359	6.2954	1.6600	0.0331	1.6931		5,153.897 8	5,153.897 8	0.1112		5,156.676 6
Total	2.9721	21.1140	19.5481	0.1080	7.7194	0.0707	7.7901	2.0804	0.0664	2.1467		11,097.33 65	11,097.33 65	0.5820		11,111.88 58

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.3 Building Construction - 2022**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	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649	0.0000	8,299.051 2	8,299.051 2	2.2135		8,354.387 4
Total	4.9387	42.8959	45.8846	0.0872		2.0936	2.0936		1.9649	1.9649	0.0000	8,299.051 2	8,299.051 2	2.2135		8,354.387 4

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
Vendor	0.5279	19.7069	4.1569	0.0564	1.4599	0.0348	1.4947	0.4203	0.0333	0.4536		5,943.438 7	5,943.438 7	0.4708		5,955.209 2
Worker	2.4442	1.4071	15.3913	0.0517	6.2595	0.0359	6.2954	1.6600	0.0331	1.6931		5,153.897 8	5,153.897 8	0.1112		5,156.676 6
Total	2.9721	21.1140	19.5481	0.1080	7.7194	0.0707	7.7901	2.0804	0.0664	2.1467		11,097.33 65	11,097.33 65	0.5820		11,111.88 58

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.4 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.7622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.8650	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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
Vendor	4.6300e-003	0.1729	0.0365	4.9000e-004	0.0128	3.1000e-004	0.0131	3.6900e-003	2.9000e-004	3.9800e-003		52.1354	52.1354	4.1300e-003		52.2387
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	0.0701	0.2106	0.4487	1.8700e-003	0.1805	1.2700e-003	0.1817	0.0482	1.1800e-003	0.0493		190.1863	190.1863	7.1100e-003		190.3639

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.4 Paving - 2022**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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.7622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.8650	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

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
Vendor	4.6300e-003	0.1729	0.0365	4.9000e-004	0.0128	3.1000e-004	0.0131	3.6900e-003	2.9000e-004	3.9800e-003		52.1354	52.1354	4.1300e-003		52.2387
Worker	0.0655	0.0377	0.4123	1.3800e-003	0.1677	9.6000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0508	138.0508	2.9800e-003		138.1253
Total	0.0701	0.2106	0.4487	1.8700e-003	0.1805	1.2700e-003	0.1817	0.0482	1.1800e-003	0.0493		190.1863	190.1863	7.1100e-003		190.3639

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.5 Architectural Coating - 2022**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	56.7772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5454	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179		750.5281	750.5281	0.0489		751.7497
Total	57.3226	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179		750.5281	750.5281	0.0489		751.7497

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
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
Worker	0.4889	0.2814	3.0783	0.0103	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,030.7796	1,030.7796	0.0222		1,031.3353
Total	0.4889	0.2814	3.0783	0.0103	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,030.7796	1,030.7796	0.0222		1,031.3353

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

3.5 Architectural Coating - 2022**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	56.7772					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5454	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179	0.0000	750.5281	750.5281	0.0489		751.7497
Total	57.3226	3.7560	4.8363	7.9200e-003		0.2179	0.2179		0.2179	0.2179	0.0000	750.5281	750.5281	0.0489		751.7497

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
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
Worker	0.4889	0.2814	3.0783	0.0103	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,030.7796	1,030.7796	0.0222		1,031.3353
Total	0.4889	0.2814	3.0783	0.0103	1.2519	7.1800e-003	1.2591	0.3320	6.6100e-003	0.3386		1,030.7796	1,030.7796	0.0222		1,031.3353

4.0 Operational Detail - Mobile

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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	32.1439	272.5507	276.7020	1.1909	81.9611	0.8442	82.8053	21.9391	0.7913	22.7304		122,226.1937	122,226.1937	9.3832		122,460.7736
Unmitigated	32.1439	272.5507	276.7020	1.1909	81.9611	0.8442	82.8053	21.9391	0.7913	22.7304		122,226.1937	122,226.1937	9.3832		122,460.7736

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,444.96	3,114.08	3114.08	1,669,646	1,669,646
Day-Care Center	333.00	27.99	26.01	377,654	377,654
Fast Food Restaurant with Drive Thru	2,380.99	3,465.98	2605.01	2,435,803	2,435,803
General Office Building	4,489.60	3,317.52	1512.48	11,986,492	11,986,492
High Turnover (Sit Down Restaurant)	1,690.96	2,106.06	1752.94	2,189,625	2,189,625
Industrial Park	321.90	203.90	33.98	987,681	987,681
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,260.98	1,806.98	4332.00	2,717,545	2,717,545
Supermarket	3,986.97	6,926.01	6491.16	5,734,688	5,734,688
Total	16,909.36	20,968.52	19,867.66	28,099,134	28,099,134

4.3 Trip Type Information

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	15	22	63
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	30	60	10
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	26	19	55
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	74	16	10
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	34	17	49
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	75	15	10
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	39	20	41
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	31	27	42

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Day-Care Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Fast Food Restaurant with Drive Thru	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
General Office Building	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
High Turnover (Sit Down Restaurant)	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Industrial Park	0.370507	0.025032	0.126348	0.000000	0.000000	0.037300	0.034200	0.400500	0.000949	0.000788	0.003088	0.000633	0.000655
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Regional Shopping Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Supermarket	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

5.1 Mitigation Measures Energy

Exceed Title 24

	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	0.1696	1.5421	1.2953	9.2500e-003		0.1172	0.1172		0.1172	0.1172		1,850.4923	1,850.4923	0.0355	0.0339	1,861.4888
NaturalGas Unmitigated	0.1941	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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	lb/day										lb/day					
Convenience Market With Gas Pumps	24.3288	2.6000e-004	2.3900e-003	2.0000e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.8622	2.8622	5.0000e-005	5.0000e-005	2.8792
Day-Care Center	108	1.1600e-003	0.0106	8.8900e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004		12.7059	12.7059	2.4000e-004	2.3000e-004	12.7814
Fast Food Restaurant with Drive Thru	3595.92	0.0388	0.3525	0.2961	2.1200e-003		0.0268	0.0268		0.0268	0.0268		423.0498	423.0498	8.1100e-003	7.7600e-003	425.5638
General Office Building	1749.26	0.0189	0.1715	0.1441	1.0300e-003		0.0130	0.0130		0.0130	0.0130		205.7953	205.7953	3.9400e-003	3.7700e-003	207.0183
High Turnover (Sit Down Restaurant)	9963.7	0.1075	0.9768	0.8205	5.8600e-003		0.0742	0.0742		0.0742	0.0742		1,172.2005	1,172.2005	0.0225	0.0215	1,179.1663
Industrial Park	448.723	4.8400e-003	0.0440	0.0370	2.6000e-004		3.3400e-003	3.3400e-003		3.3400e-003	3.3400e-003		52.7910	52.7910	1.0100e-003	9.7000e-004	53.1047
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	45.6164	4.9000e-004	4.4700e-003	3.7600e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004		5.3666	5.3666	1.0000e-004	1.0000e-004	5.3985
Supermarket	2057.92	0.0222	0.2018	0.1695	1.2100e-003		0.0153	0.0153		0.0153	0.0153		242.1080	242.1080	4.6400e-003	4.4400e-003	243.5467
Total		0.1940	1.7641	1.4818	0.0106		0.1341	0.1341		0.1341	0.1341		2,116.8793	2,116.8793	0.0406	0.0388	2,129.4589

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market With Gas Pumps	0.0180164	1.9000e-004	1.7700e-003	1.4800e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004		2.1196	2.1196	4.0000e-005	4.0000e-005	2.1322
Day-Care Center	0.0822205	8.9000e-004	8.0600e-003	6.7700e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		9.6730	9.6730	1.9000e-004	1.8000e-004	9.7305
Fast Food Restaurant with Drive Thru	3.2895	0.0355	0.3225	0.2709	1.9300e-003		0.0245	0.0245		0.0245	0.0245		386.9999	386.9999	7.4200e-003	7.0900e-003	389.2997
General Office Building	1.22448	0.0132	0.1201	0.1008	7.2000e-004		9.1200e-003	9.1200e-003		9.1200e-003	9.1200e-003		144.0567	144.0567	2.7600e-003	2.6400e-003	144.9128
High Turnover (Sit Down Restaurant)	9.11465	0.0983	0.8936	0.7506	5.3600e-003		0.0679	0.0679		0.0679	0.0679		1,072.3122	1,072.3122	0.0206	0.0197	1,078.6845
Industrial Park	0.314106	3.3900e-003	0.0308	0.0259	1.8000e-004		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003		36.9537	36.9537	7.1000e-004	6.8000e-004	37.1733
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	0.0337808	3.6000e-004	3.3100e-003	2.7800e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004		3.9742	3.9742	8.0000e-005	7.0000e-005	3.9978
Supermarket	1.65242	0.0178	0.1620	0.1361	9.7000e-004		0.0123	0.0123		0.0123	0.0123		194.4029	194.4029	3.7300e-003	3.5600e-003	195.5581
Total		0.1696	1.5421	1.2953	9.2400e-003		0.1172	0.1172		0.1172	0.1172		1,850.4922	1,850.4922	0.0355	0.0339	1,861.4888

6.0 Area Detail**6.1 Mitigation Measures Area**

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

	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	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Unmitigated	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

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	0.8556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2500e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Total	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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	0.8556					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.4096					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.2500e-003	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796
Total	7.2684	3.2000e-004	0.0349	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0747	0.0747	2.0000e-004		0.0796

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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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Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Winter

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

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Annual

Haun and Holland Mixed Use Center - Phase 2

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	184.00	1000sqft	4.22	184,000.00	0
Day-Care Center	4.50	1000sqft	0.10	4,500.00	0
Industrial Park	47.20	1000sqft	1.08	47,200.00	0
Other Non-Asphalt Surfaces	8.92	Acre	8.92	388,555.20	0
Parking Lot	16.00	Acre	16.00	696,960.00	0
Fast Food Restaurant with Drive Thru	4.80	1000sqft	0.11	4,800.00	0
High Turnover (Sit Down Restaurant)	13.30	1000sqft	0.31	13,300.00	0
Convenience Market With Gas Pumps	16.00	Pump	0.05	4,000.00	0
Regional Shopping Center	7.50	1000sqft	0.17	7,500.00	0
Supermarket	39.00	1000sqft	0.90	39,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Haun and Holland Mixed Use Center - Phase 2 - Riverside-South Coast County, Annual

Project Characteristics - Per Applicant

Land Use - Per Site Plan and TIA

Construction Phase - Per Applicant

Off-road Equipment - Per Applicant

Off-road Equipment - Per Applicant; Off-Highway trucks represent a concrete pump truck

Off-road Equipment - Per Applicant

Off-road Equipment -

Trips and VMT - 2 Water Truck Trips added for grading and paving

Vehicle Trips - Per TIA for weekday; weekend trip rates from traffic engineers

Energy Use -

Construction Off-road Equipment Mitigation - water site 3x daily per Rule 403

Energy Mitigation - 30% reduction per 2019 Title 24

Water Mitigation - 20% indoor water reduction per CalGreen

Waste Mitigation - 75% reduction per AB 341

Fleet Mix - Per TIA

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	55.00
tblConstructionPhase	NumDays	500.00	642.00
tblConstructionPhase	NumDays	45.00	81.00
tblConstructionPhase	NumDays	35.00	55.00
tblFleetMix	HHD	0.07	0.40
tblFleetMix	LDA	0.55	0.37
tblFleetMix	LDT1	0.04	0.03
tblFleetMix	LDT2	0.19	0.13
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.9700e-003	0.04

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tblFleetMix	MCY	4.5470e-003	3.0880e-003
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	9.6500e-004	6.5500e-004
tblFleetMix	MHD	0.02	0.03
tblFleetMix	OBUS	1.3970e-003	9.4900e-004
tblFleetMix	SBUS	9.3200e-004	6.3300e-004
tblFleetMix	UBUS	1.1600e-003	7.8800e-004
tblGrading	AcresOfGrading	324.00	112.50
tblLandUse	LandUseSquareFeet	2,258.80	4,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblVehicleTrips	DV_TP	21.00	22.00
tblVehicleTrips	DV_TP	58.00	60.00
tblVehicleTrips	DV_TP	21.00	19.00

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tblVehicleTrips	DV_TP	19.00	16.00
tblVehicleTrips	DV_TP	20.00	17.00
tblVehicleTrips	DV_TP	19.00	15.00
tblVehicleTrips	DV_TP	35.00	20.00
tblVehicleTrips	DV_TP	30.00	27.00
tblVehicleTrips	PB_TP	65.00	63.00
tblVehicleTrips	PB_TP	14.00	10.00
tblVehicleTrips	PB_TP	50.00	55.00
tblVehicleTrips	PB_TP	4.00	10.00
tblVehicleTrips	PB_TP	43.00	49.00
tblVehicleTrips	PB_TP	2.00	10.00
tblVehicleTrips	PB_TP	11.00	41.00
tblVehicleTrips	PB_TP	36.00	42.00
tblVehicleTrips	PR_TP	14.00	15.00
tblVehicleTrips	PR_TP	28.00	30.00
tblVehicleTrips	PR_TP	29.00	26.00
tblVehicleTrips	PR_TP	77.00	74.00
tblVehicleTrips	PR_TP	37.00	34.00
tblVehicleTrips	PR_TP	79.00	75.00
tblVehicleTrips	PR_TP	54.00	39.00
tblVehicleTrips	PR_TP	34.00	31.00
tblVehicleTrips	ST_TR	204.47	194.63
tblVehicleTrips	ST_TR	6.21	6.22
tblVehicleTrips	ST_TR	722.03	722.08
tblVehicleTrips	ST_TR	2.46	18.03
tblVehicleTrips	ST_TR	158.37	158.35
tblVehicleTrips	ST_TR	2.49	4.32

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tblVehicleTrips	ST_TR	49.97	240.93
tblVehicleTrips	SU_TR	166.88	194.63
tblVehicleTrips	SU_TR	5.83	5.78
tblVehicleTrips	SU_TR	542.72	542.71
tblVehicleTrips	SU_TR	1.05	8.22
tblVehicleTrips	SU_TR	131.84	131.80
tblVehicleTrips	SU_TR	0.73	0.72
tblVehicleTrips	SU_TR	25.24	577.60
tblVehicleTrips	WD_TR	542.60	152.81
tblVehicleTrips	WD_TR	74.06	74.00
tblVehicleTrips	WD_TR	496.12	496.04
tblVehicleTrips	WD_TR	11.03	24.40
tblVehicleTrips	WD_TR	127.15	127.14
tblVehicleTrips	WD_TR	6.83	6.82
tblVehicleTrips	WD_TR	42.70	168.13
tblVehicleTrips	WD_TR	102.24	102.23

2.0 Emissions Summary

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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					
2020	0.8440	8.0139	6.0712	0.0159	1.0186	0.3199	1.3385	0.4017	0.2978	0.6994	0.0000	1,427.574 1	1,427.574 1	0.2586	0.0000	1,434.039 9
2021	1.1057	9.4209	8.9352	0.0262	0.9912	0.3378	1.3290	0.2675	0.3168	0.5843	0.0000	2,357.729 1	2,357.729 1	0.3338	0.0000	2,366.073 2
2022	2.6423	8.7925	9.2076	0.0269	1.0261	0.3031	1.3292	0.2768	0.2846	0.5613	0.0000	2,424.164 0	2,424.164 0	0.3466	0.0000	2,432.829 8
Maximum	2.6423	9.4209	9.2076	0.0269	1.0261	0.3378	1.3385	0.4017	0.3168	0.6994	0.0000	2,424.164 0	2,424.164 0	0.3466	0.0000	2,432.829 8

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					
2020	0.8440	8.0139	6.0712	0.0159	0.6847	0.3199	1.0045	0.2342	0.2978	0.5320	0.0000	1,427.573 2	1,427.573 2	0.2586	0.0000	1,434.039 0
2021	1.1057	9.4209	8.9352	0.0262	0.9912	0.3378	1.3290	0.2675	0.3168	0.5843	0.0000	2,357.727 9	2,357.727 9	0.3338	0.0000	2,366.072 0
2022	2.6423	8.7925	9.2076	0.0269	1.0261	0.3031	1.3292	0.2768	0.2846	0.5613	0.0000	2,424.162 8	2,424.162 8	0.3466	0.0000	2,432.828 5
Maximum	2.6423	9.4209	9.2076	0.0269	1.0261	0.3378	1.3292	0.2768	0.3168	0.5843	0.0000	2,424.162 8	2,424.162 8	0.3466	0.0000	2,432.828 5

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	11.00	0.00	8.36	17.71	0.00	9.08	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	3-25-2020	6-24-2020	2.7719	2.7719
2	6-25-2020	9-24-2020	2.9106	2.9106
3	9-25-2020	12-24-2020	2.9168	2.9168
4	12-25-2020	3-24-2021	2.6104	2.6104
5	3-25-2021	6-24-2021	2.6492	2.6492
6	6-25-2021	9-24-2021	2.6496	2.6496
7	9-25-2021	12-24-2021	2.6164	2.6164
8	12-25-2021	3-24-2022	2.3332	2.3332
9	3-25-2022	6-24-2022	2.3680	2.3680
10	6-25-2022	9-24-2022	2.3684	2.3684
11	9-25-2022	9-30-2022	0.1545	0.1545
		Highest	2.9168	2.9168

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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	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003
Energy	0.0354	0.3219	0.2704	1.9300e-003		0.0245	0.0245		0.0245	0.0245	0.0000	1,920.1976	1,920.1976	0.0715	0.0198	1,927.8960
Mobile	4.1914	36.6278	36.8869	0.1630	10.7491	0.1110	10.8601	2.8814	0.1041	2.9855	0.0000	15,184.0024	15,184.0024	1.0705	0.0000	15,210.7660
Waste						0.0000	0.0000		0.0000	0.0000	137.4046	0.0000	137.4046	8.1204	0.0000	340.4140
Water						0.0000	0.0000		0.0000	0.0000	17.3967	303.5445	320.9412	1.7993	0.0448	379.2701
Total	5.5531	36.9498	37.1617	0.1650	10.7491	0.1355	10.8846	2.8814	0.1285	3.0100	154.8013	17,407.7529	17,562.5542	11.0618	0.0646	17,858.3551

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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	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003
Energy	0.0310	0.2814	0.2364	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	1,757.9712	1,757.9712	0.0658	0.0180	1,764.9849
Mobile	4.1914	36.6278	36.8869	0.1630	10.7491	0.1110	10.8601	2.8814	0.1041	2.9855	0.0000	15,184.0024	15,184.0024	1.0705	0.0000	15,210.7660
Waste						0.0000	0.0000		0.0000	0.0000	34.3512	0.0000	34.3512	2.0301	0.0000	85.1035
Water						0.0000	0.0000		0.0000	0.0000	13.9174	258.0447	271.9620	1.4401	0.0360	318.6796
Total	5.5487	36.9093	37.1277	0.1647	10.7491	0.1324	10.8815	2.8814	0.1255	3.0069	48.2685	17,200.0268	17,248.2953	4.6066	0.0540	17,379.5430

	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	0.08	0.11	0.09	0.15	0.00	2.27	0.03	0.00	2.40	0.10	68.82	1.19	1.79	58.36	16.45	2.68

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/25/2020	7/15/2020	5	81	
2	Building Construction	Building Construction	7/16/2020	12/31/2022	5	642	
3	Paving	Paving	10/17/2022	12/31/2022	5	55	
4	Architectural Coating	Architectural Coating	10/17/2022	12/31/2022	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 24.92

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,450; Non-Residential Outdoor: 152,150; Striped Parking Area: 65,131 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	3	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Off-Highway Trucks	2	6.00	402	0.38
Building Construction	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	2	8.00	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
Grading	10	25.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	22	560.00	228.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	112.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Water Exposed Area

3.2 Grading - 2020**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					0.5474	0.0000	0.5474	0.2746	0.0000	0.2746	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2735	3.1264	1.7049	3.5300e-003		0.1325	0.1325		0.1219	0.1219	0.0000	310.1976	310.1976	0.1003	0.0000	312.7057
Total	0.2735	3.1264	1.7049	3.5300e-003	0.5474	0.1325	0.6800	0.2746	0.1219	0.3965	0.0000	310.1976	310.1976	0.1003	0.0000	312.7057

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	2.3000e-004	8.4200e-003	1.6500e-003	2.0000e-005	5.1000e-004	5.0000e-005	5.6000e-004	1.5000e-004	5.0000e-005	1.9000e-004	0.0000	1.9917	1.9917	1.6000e-004	0.0000	1.9957
Worker	4.6500e-003	3.2600e-003	0.0348	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003	0.0000	9.3109	9.3109	2.3000e-004	0.0000	9.3167
Total	4.8800e-003	0.0117	0.0365	1.2000e-004	0.0116	1.2000e-004	0.0118	3.1100e-003	1.1000e-004	3.2100e-003	0.0000	11.3026	11.3026	3.9000e-004	0.0000	11.3124

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3.2 Grading - 2020**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					0.2135	0.0000	0.2135	0.1071	0.0000	0.1071	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2735	3.1264	1.7049	3.5300e-003		0.1325	0.1325		0.1219	0.1219	0.0000	310.1972	310.1972	0.1003	0.0000	312.7054
Total	0.2735	3.1264	1.7049	3.5300e-003	0.2135	0.1325	0.3460	0.1071	0.1219	0.2290	0.0000	310.1972	310.1972	0.1003	0.0000	312.7054

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	2.3000e-004	8.4200e-003	1.6500e-003	2.0000e-005	5.1000e-004	5.0000e-005	5.6000e-004	1.5000e-004	5.0000e-005	1.9000e-004	0.0000	1.9917	1.9917	1.6000e-004	0.0000	1.9957
Worker	4.6500e-003	3.2600e-003	0.0348	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003	0.0000	9.3109	9.3109	2.3000e-004	0.0000	9.3167
Total	4.8800e-003	0.0117	0.0365	1.2000e-004	0.0116	1.2000e-004	0.0118	3.1100e-003	1.1000e-004	3.2100e-003	0.0000	11.3026	11.3026	3.9000e-004	0.0000	11.3124

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3.3 Building Construction - 2020**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	0.3707	3.3320	2.8843	5.2700e-003		0.1768	0.1768		0.1658	0.1658	0.0000	455.3386	455.3386	0.1230	0.0000	458.4136
Total	0.3707	3.3320	2.8843	5.2700e-003		0.1768	0.1768		0.1658	0.1658	0.0000	455.3386	455.3386	0.1230	0.0000	458.4136

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	0.0392	1.4347	0.2807	3.5500e-003	0.0871	8.1100e-003	0.0952	0.0251	7.7600e-003	0.0329	0.0000	339.1775	339.1775	0.0271	0.0000	339.8553
Worker	0.1557	0.1091	1.1650	3.4500e-003	0.3724	2.2900e-003	0.3747	0.0989	2.1100e-003	0.1010	0.0000	311.5579	311.5579	7.8000e-003	0.0000	311.7530
Total	0.1949	1.5438	1.4457	7.0000e-003	0.4595	0.0104	0.4699	0.1240	9.8700e-003	0.1339	0.0000	650.7354	650.7354	0.0349	0.0000	651.6082

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3.3 Building Construction - 2020**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	0.3707	3.3320	2.8843	5.2700e-003		0.1768	0.1768		0.1658	0.1658	0.0000	455.3381	455.3381	0.1230	0.0000	458.4130
Total	0.3707	3.3320	2.8843	5.2700e-003		0.1768	0.1768		0.1658	0.1658	0.0000	455.3381	455.3381	0.1230	0.0000	458.4130

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	0.0392	1.4347	0.2807	3.5500e-003	0.0871	8.1100e-003	0.0952	0.0251	7.7600e-003	0.0329	0.0000	339.1775	339.1775	0.0271	0.0000	339.8553
Worker	0.1557	0.1091	1.1650	3.4500e-003	0.3724	2.2900e-003	0.3747	0.0989	2.1100e-003	0.1010	0.0000	311.5579	311.5579	7.8000e-003	0.0000	311.7530
Total	0.1949	1.5438	1.4457	7.0000e-003	0.4595	0.0104	0.4699	0.1240	9.8700e-003	0.1339	0.0000	650.7354	650.7354	0.0349	0.0000	651.6082

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3.3 Building Construction - 2021**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	0.7214	6.4354	6.1009	0.0114		0.3277	0.3277		0.3073	0.3073	0.0000	982.2423	982.2423	0.2633	0.0000	988.8237
Total	0.7214	6.4354	6.1009	0.0114		0.3277	0.3277		0.3073	0.3073	0.0000	982.2423	982.2423	0.2633	0.0000	988.8237

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	0.0710	2.7743	0.5338	7.5900e-003	0.1879	5.3000e-003	0.1932	0.0542	5.0700e-003	0.0593	0.0000	725.9178	725.9178	0.0554	0.0000	727.3023
Worker	0.3133	0.2111	2.3006	7.1800e-003	0.8032	4.8100e-003	0.8081	0.2133	4.4300e-003	0.2177	0.0000	649.5689	649.5689	0.0151	0.0000	649.9472
Total	0.3843	2.9855	2.8344	0.0148	0.9912	0.0101	1.0013	0.2675	9.5000e-003	0.2770	0.0000	1,375.4868	1,375.4868	0.0705	0.0000	1,377.2495

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3.3 Building Construction - 2021**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	0.7214	6.4354	6.1009	0.0114		0.3277	0.3277		0.3073	0.3073	0.0000	982.2411	982.2411	0.2633	0.0000	988.8225
Total	0.7214	6.4354	6.1009	0.0114		0.3277	0.3277		0.3073	0.3073	0.0000	982.2411	982.2411	0.2633	0.0000	988.8225

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	0.0710	2.7743	0.5338	7.5900e-003	0.1879	5.3000e-003	0.1932	0.0542	5.0700e-003	0.0593	0.0000	725.9178	725.9178	0.0554	0.0000	727.3023
Worker	0.3133	0.2111	2.3006	7.1800e-003	0.8032	4.8100e-003	0.8081	0.2133	4.4300e-003	0.2177	0.0000	649.5689	649.5689	0.0151	0.0000	649.9472
Total	0.3843	2.9855	2.8344	0.0148	0.9912	0.0101	1.0013	0.2675	9.5000e-003	0.2770	0.0000	1,375.4868	1,375.4868	0.0705	0.0000	1,377.2495

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3.3 Building Construction - 2022**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	0.6420	5.5765	5.9650	0.0113		0.2722	0.2722		0.2554	0.2554	0.0000	978.7404	978.7404	0.2610	0.0000	985.2665
Total	0.6420	5.5765	5.9650	0.0113		0.2722	0.2722		0.2554	0.2554	0.0000	978.7404	978.7404	0.2610	0.0000	985.2665

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	0.0660	2.6037	0.4953	7.4900e-003	0.1872	4.4500e-003	0.1916	0.0540	4.2500e-003	0.0583	0.0000	716.9162	716.9162	0.0523	0.0000	718.2228
Worker	0.2924	0.1892	2.1112	6.8900e-003	0.8002	4.6700e-003	0.8048	0.2125	4.3000e-003	0.2168	0.0000	623.4673	623.4673	0.0136	0.0000	623.8060
Total	0.3584	2.7929	2.6065	0.0144	0.9874	9.1200e-003	0.9965	0.2665	8.5500e-003	0.2750	0.0000	1,340.3835	1,340.3835	0.0658	0.0000	1,342.0287

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3.3 Building Construction - 2022**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	0.6420	5.5765	5.9650	0.0113		0.2722	0.2722		0.2554	0.2554	0.0000	978.7393	978.7393	0.2610	0.0000	985.2653
Total	0.6420	5.5765	5.9650	0.0113		0.2722	0.2722		0.2554	0.2554	0.0000	978.7393	978.7393	0.2610	0.0000	985.2653

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	0.0660	2.6037	0.4953	7.4900e-003	0.1872	4.4500e-003	0.1916	0.0540	4.2500e-003	0.0583	0.0000	716.9162	716.9162	0.0523	0.0000	718.2228
Worker	0.2924	0.1892	2.1112	6.8900e-003	0.8002	4.6700e-003	0.8048	0.2125	4.3000e-003	0.2168	0.0000	623.4673	623.4673	0.0136	0.0000	623.8060
Total	0.3584	2.7929	2.6065	0.0144	0.9874	9.1200e-003	0.9965	0.2665	8.5500e-003	0.2750	0.0000	1,340.3835	1,340.3835	0.0658	0.0000	1,342.0287

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3.4 Paving - 2022**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	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211
Paving	0.0210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0513	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0758	55.0758	0.0178	0.0000	55.5211

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.8300e-003	9.2000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.6000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3303	1.3303	1.0000e-004	0.0000	1.3327
Worker	1.6600e-003	1.0700e-003	0.0120	4.0000e-005	4.5300e-003	3.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.5327	3.5327	8.0000e-005	0.0000	3.5346
Total	1.7800e-003	5.9000e-003	0.0129	5.0000e-005	4.8800e-003	4.0000e-005	4.9200e-003	1.3000e-003	3.0000e-005	1.3400e-003	0.0000	4.8630	4.8630	1.8000e-004	0.0000	4.8673

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3.4 Paving - 2022**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	0.0303	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210
Paving	0.0210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0513	0.3059	0.4010	6.3000e-004		0.0156	0.0156		0.0144	0.0144	0.0000	55.0757	55.0757	0.0178	0.0000	55.5210

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.8300e-003	9.2000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.6000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3303	1.3303	1.0000e-004	0.0000	1.3327
Worker	1.6600e-003	1.0700e-003	0.0120	4.0000e-005	4.5300e-003	3.0000e-005	4.5600e-003	1.2000e-003	2.0000e-005	1.2300e-003	0.0000	3.5327	3.5327	8.0000e-005	0.0000	3.5346
Total	1.7800e-003	5.9000e-003	0.0129	5.0000e-005	4.8800e-003	4.0000e-005	4.9200e-003	1.3000e-003	3.0000e-005	1.3400e-003	0.0000	4.8630	4.8630	1.8000e-004	0.0000	4.8673

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3.5 Architectural Coating - 2022**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	1.5614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.1033	0.1330	2.2000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	18.7239	18.7239	1.2200e-003	0.0000	18.7543
Total	1.5764	0.1033	0.1330	2.2000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	18.7239	18.7239	1.2200e-003	0.0000	18.7543

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	0.0124	8.0100e-003	0.0893	2.9000e-004	0.0339	2.0000e-004	0.0341	8.9900e-003	1.8000e-004	9.1700e-003	0.0000	26.3775	26.3775	5.7000e-004	0.0000	26.3918
Total	0.0124	8.0100e-003	0.0893	2.9000e-004	0.0339	2.0000e-004	0.0341	8.9900e-003	1.8000e-004	9.1700e-003	0.0000	26.3775	26.3775	5.7000e-004	0.0000	26.3918

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3.5 Architectural Coating - 2022**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	1.5614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0150	0.1033	0.1330	2.2000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	18.7238	18.7238	1.2200e-003	0.0000	18.7543
Total	1.5764	0.1033	0.1330	2.2000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	18.7238	18.7238	1.2200e-003	0.0000	18.7543

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	0.0124	8.0100e-003	0.0893	2.9000e-004	0.0339	2.0000e-004	0.0341	8.9900e-003	1.8000e-004	9.1700e-003	0.0000	26.3775	26.3775	5.7000e-004	0.0000	26.3918
Total	0.0124	8.0100e-003	0.0893	2.9000e-004	0.0339	2.0000e-004	0.0341	8.9900e-003	1.8000e-004	9.1700e-003	0.0000	26.3775	26.3775	5.7000e-004	0.0000	26.3918

4.0 Operational Detail - Mobile

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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	4.1914	36.6278	36.8869	0.1630	10.7491	0.1110	10.8601	2.8814	0.1041	2.9855	0.0000	15,184.00 24	15,184.00 24	1.0705	0.0000	15,210.76 60
Unmitigated	4.1914	36.6278	36.8869	0.1630	10.7491	0.1110	10.8601	2.8814	0.1041	2.9855	0.0000	15,184.00 24	15,184.00 24	1.0705	0.0000	15,210.76 60

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	2,444.96	3,114.08	3114.08	1,669,646	1,669,646
Day-Care Center	333.00	27.99	26.01	377,654	377,654
Fast Food Restaurant with Drive Thru	2,380.99	3,465.98	2605.01	2,435,803	2,435,803
General Office Building	4,489.60	3,317.52	1512.48	11,986,492	11,986,492
High Turnover (Sit Down Restaurant)	1,690.96	2,106.06	1752.94	2,189,625	2,189,625
Industrial Park	321.90	203.90	33.98	987,681	987,681
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	1,260.98	1,806.98	4332.00	2,717,545	2,717,545
Supermarket	3,986.97	6,926.01	6491.16	5,734,688	5,734,688
Total	16,909.36	20,968.52	19,867.66	28,099,134	28,099,134

4.3 Trip Type Information

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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
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	15	22	63
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	30	60	10
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	26	19	55
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	74	16	10
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	34	17	49
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	75	15	10
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	39	20	41
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	31	27	42

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Day-Care Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Fast Food Restaurant with Drive Thru	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
General Office Building	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
High Turnover (Sit Down Restaurant)	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Industrial Park	0.370507	0.025032	0.126348	0.000000	0.000000	0.037300	0.034200	0.400500	0.000949	0.000788	0.003088	0.000633	0.000655
Other Non-Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Regional Shopping Center	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Supermarket	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

	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	1,451.6014	1,451.6014	0.0599	0.0124	1,456.7946
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,569.7245	1,569.7245	0.0648	0.0134	1,575.3402
NaturalGas Mitigated	0.0310	0.2814	0.2364	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.3698	306.3698	5.8700e-003	5.6200e-003	308.1904
NaturalGas Unmitigated	0.0354	0.3219	0.2704	1.9300e-003		0.0245	0.0245		0.0245	0.0245	0.0000	350.4731	350.4731	6.7200e-003	6.4300e-003	352.5558

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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					
Convenience Market With Gas Pumps	8880	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4739	0.4739	1.0000e-005	1.0000e-005	0.4767
Day-Care Center	39420	2.1000e-004	1.9300e-003	1.6200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1036	2.1036	4.0000e-005	4.0000e-005	2.1161
Fast Food Restaurant with Drive Thru	1.31251e+006	7.0800e-003	0.0643	0.0540	3.9000e-004		4.8900e-003	4.8900e-003		4.8900e-003	4.8900e-003	0.0000	70.0406	70.0406	1.3400e-003	1.2800e-003	70.4569
General Office Building	638480	3.4400e-003	0.0313	0.0263	1.9000e-004		2.3800e-003	2.3800e-003		2.3800e-003	2.3800e-003	0.0000	34.0717	34.0717	6.5000e-004	6.2000e-004	34.2742
High Turnover (Sit Down Restaurant)	3.63675e+006	0.0196	0.1783	0.1498	1.0700e-003		0.0136	0.0136		0.0136	0.0136	0.0000	194.0709	194.0709	3.7200e-003	3.5600e-003	195.2242
Industrial Park	163784	8.8000e-004	8.0300e-003	6.7400e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7401	8.7401	1.7000e-004	1.6000e-004	8.7921
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	16650	9.0000e-005	8.2000e-004	6.9000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.8885	0.8885	2.0000e-005	2.0000e-005	0.8938
Supermarket	751140	4.0500e-003	0.0368	0.0309	2.2000e-004		2.8000e-003	2.8000e-003		2.8000e-003	2.8000e-003	0.0000	40.0837	40.0837	7.7000e-004	7.3000e-004	40.3219
Total		0.0354	0.3220	0.2704	1.9300e-003		0.0245	0.0245		0.0245	0.0245	0.0000	350.4731	350.4731	6.7200e-003	6.4200e-003	352.5558

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	6576	4.0000e-005	3.2000e-004	2.7000e-004	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.3509	0.3509	1.0000e-005	1.0000e-005	0.3530
Day-Care Center	30010.5	1.6000e-004	1.4700e-003	1.2400e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.6015	1.6015	3.0000e-005	3.0000e-005	1.6110
Fast Food Restaurant with Drive Thru	1.20067e+006	6.4700e-003	0.0589	0.0494	3.5000e-004		4.4700e-003	4.4700e-003		4.4700e-003	4.4700e-003	0.0000	64.0722	64.0722	1.2300e-003	1.1700e-003	64.4529
General Office Building	446936	2.4100e-003	0.0219	0.0184	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.8502	23.8502	4.6000e-004	4.4000e-004	23.9919
High Turnover (Sit Down Restaurant)	3.32685e+006	0.0179	0.1631	0.1370	9.8000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	177.5333	177.5333	3.4000e-003	3.2500e-003	178.5883
Industrial Park	114649	6.2000e-004	5.6200e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1181	6.1181	1.2000e-004	1.1000e-004	6.1545
Other Non-Asphalt Surfaces	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
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
Regional Shopping Center	12330	7.0000e-005	6.0000e-004	5.1000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6580	0.6580	1.0000e-005	1.0000e-005	0.6619
Supermarket	603135	3.2500e-003	0.0296	0.0248	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.1856	32.1856	6.2000e-004	5.9000e-004	32.3768
Total		0.0310	0.2814	0.2364	1.6800e-003		0.0214	0.0214		0.0214	0.0214	0.0000	306.3698	306.3698	5.8800e-003	5.6100e-003	308.1904

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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			
Convenience Market With Gas Pumps	50520	16.0968	6.6000e-004	1.4000e-004	16.1543
Day-Care Center	32850	10.4667	4.3000e-004	9.0000e-005	10.5042
Fast Food Restaurant with Drive Thru	227904	72.6151	3.0000e-003	6.2000e-004	72.8749
General Office Building	1.75168e+006	558.1228	0.0230	4.7700e-003	560.1195
High Turnover (Sit Down Restaurant)	631484	201.2043	8.3100e-003	1.7200e-003	201.9242
Industrial Park	449344	143.1706	5.9100e-003	1.2200e-003	143.6828
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	243936	77.7232	3.2100e-003	6.6000e-004	78.0013
Regional Shopping Center	94725	30.1814	1.2500e-003	2.6000e-004	30.2894
Supermarket	1.44417e+006	460.1435	0.0190	3.9300e-003	461.7897
Total		1,569.7245	0.0648	0.0134	1,575.3402

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	45024	14.3456	5.9000e-004	1.2000e-004	14.3969
Day-Care Center	29097	9.2709	3.8000e-004	8.0000e-005	9.3041
Fast Food Restaurant with Drive Thru	210077	66.9350	2.7600e-003	5.7000e-004	67.1744
General Office Building	1.58222e+006	504.1279	0.0208	4.3100e-003	505.9315
High Turnover (Sit Down Restaurant)	582088	185.4656	7.6600e-003	1.5800e-003	186.1292
Industrial Park	405873	129.3198	5.3400e-003	1.1000e-003	129.7824
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	243936	77.7232	3.2100e-003	6.6000e-004	78.0013
Regional Shopping Center	84420	26.8980	1.1100e-003	2.3000e-004	26.9943
Supermarket	1.37315e+006	437.5153	0.0181	3.7400e-003	439.0806
Total		1,451.6014	0.0599	0.0124	1,456.7946

6.0 Area Detail**6.1 Mitigation Measures Area**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003
Unmitigated	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003
Total	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003

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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	0.1561					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1698					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.1000e-004	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003
Total	1.3263	4.0000e-005	4.3600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.4700e-003	8.4700e-003	2.0000e-005	0.0000	9.0300e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	271.9620	1.4401	0.0360	318.6796
Unmitigated	320.9412	1.7993	0.0448	379.2701

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7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.167315 / 0.102548	1.1102	5.5000e-003	1.4000e-004	1.2887
Day-Care Center	0.193003 / 0.496294	2.6188	6.3900e-003	1.7000e-004	2.8294
Fast Food Restaurant with Drive Thru	1.45696 / 0.0929976	6.8360	0.0477	1.1800e-003	8.3798
General Office Building	32.703 / 20.0438	217.0051	1.0742	0.0269	251.8832
High Turnover (Sit Down Restaurant)	4.037 / 0.257681	18.9415	0.1323	3.2600e-003	23.2189
Industrial Park	10.915 / 0	48.7467	0.3575	8.7800e-003	60.3029
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.555544 / 0.340495	3.6864	0.0183	4.6000e-004	4.2789
Supermarket	4.80746 / 0.148684	21.9966	0.1575	3.8700e-003	27.0883
Total		320.9412	1.7993	0.0448	379.2701

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.133852 / 0.102548	0.9608	4.4000e-003	1.1000e-004	1.1038
Day-Care Center	0.154402 / 0.496294	2.4464	5.1300e-003	1.4000e-004	2.6162
Fast Food Restaurant with Drive Thru	1.16557 / 0.0929976	5.5347	0.0382	9.4000e-004	6.7699
General Office Building	26.1624 / 20.0438	187.7946	0.8599	0.0217	215.7479
High Turnover (Sit Down Restaurant)	3.2296 / 0.257681	15.3356	0.1058	2.6100e-003	18.7582
Industrial Park	8.732 / 0	38.9973	0.2860	7.0300e-003	48.2423
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.444435 / 0.340495	3.1902	0.0146	3.7000e-004	3.6650
Supermarket	3.84597 / 0.148684	17.7025	0.1260	3.1000e-003	21.7763
Total		271.9620	1.4401	0.0360	318.6796

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	34.3512	2.0301	0.0000	85.1035
Unmitigated	137.4046	8.1204	0.0000	340.4140

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	5.85	1.1875	0.0702	0.0000	2.9420
Fast Food Restaurant with Drive Thru	55.29	11.2234	0.6633	0.0000	27.8054
General Office Building	171.12	34.7358	2.0528	0.0000	86.0565
High Turnover (Sit Down Restaurant)	158.27	32.1274	1.8987	0.0000	79.5942
Industrial Park	58.53	11.8811	0.7022	0.0000	29.4348
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	7.88	1.5996	0.0945	0.0000	3.9629
Supermarket	219.96	44.6499	2.6387	0.0000	110.6182
Total		137.4046	8.1204	0.0000	340.4140

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	1.4625	0.2969	0.0175	0.0000	0.7355
Fast Food Restaurant with Drive Thru	13.8225	2.8058	0.1658	0.0000	6.9514
General Office Building	42.78	8.6840	0.5132	0.0000	21.5141
High Turnover (Sit Down Restaurant)	39.5675	8.0318	0.4747	0.0000	19.8986
Industrial Park	14.6325	2.9703	0.1755	0.0000	7.3587
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	1.97	0.3999	0.0236	0.0000	0.9907
Supermarket	54.99	11.1625	0.6597	0.0000	27.6546
Total		34.3511	2.0301	0.0000	85.1035

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

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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
