



AIR QUALITY & GHG EMISSIONS MODELING REPORT

Date: February 17, 2021

To: Cassidy Williams, Environmental Planner
SWCA Environmental Consultants

From: Kurt Legleiter, Principal

Project: Santa Maria Rancho Harvest Project

Subject: Emissions Modeling Report

This memorandum provides a summary of the emissions modeling conducted for the proposed Santa Maria Rancho Harvest Project. Emissions modeling assumptions and output files are included as an appendix to this memorandum.

AIR QUALITY AND GREENHOUSE GAS QUANTIFICATION METHODOLOGY

Short-term Construction

Short-term construction emissions associated with the proposed project were calculated using the California Emission Estimator Model (CalEEMod), version 2016.3.2, computer program. Emissions were quantified for demolition, site preparation, grading, building construction, paving, and architectural coating. Detailed construction information for the proposed project was not available at the time of this analysis. As a result, CalEEMod default assumptions, including construction schedules, vehicle trips, and equipment requirements, were based on model defaults. Construction-generated emissions were calculated with and without implementation of fugitive dust control measures. Construction modeling assumptions are summarized in the appendix attached to this report.

Long-term Operations

Long-term operational emissions were calculated using the CalEEMod computer program. Modeling was conducted based on traffic data derived, in part, from the traffic analysis prepared for this project (CCTC 2021).¹ The CalEEMod computer program is based on the 2016 building and energy-efficiency standards. These standards were most recently updated in 2018. In comparison to the 2016 standards, these newer standards are projected to achieve additional reductions in energy use of approximately 30 percent for nonresidential buildings (CEC 2018).² Anticipated reductions in energy use associated with the newer building code are predominantly associated with increases in energy-efficient lighting requirements. The use of water-efficient irrigation systems, water-efficient building fixtures, and energy-efficient appliances is also required by the California building code. Operational emissions were quantified to include reductions in energy and water use,

¹ Central Coast Transportation Consulting (CCTC). 2021. *Rancho Harvest General Plan Amendment Administrative Draft Transportation Impact Study*.

² California Energy Commission (CEC). May 9, 2018. *Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation*. Available at website url: <https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first>.



consistent with current building standards. Utility intensity factors were adjusted to reflect compliance with the State's renewable portfolio standards. All other assumptions were based on modelled defaults from CalEEMod for the northern portion of Santa Barbara County.

Within Santa Barbara County, each service provider is required to recover or divert from landfilling a specific percentage of material collected in each service area. These requirements are part of the County's overall program for meeting the state's goal of diverting 75 percent of the waste generated from landfills, consistent with the state-wide goal. Emissions associated with waste generation for the proposed project were based on the current waste-diversion rate of 60 percent.

Vehicle trip-generation rates were derived from the traffic analysis prepared for this project (CCTC 2021). Emissions were adjusted to include EMFAC off-model adjustment factors to account for the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, Part One, adopted by the U.S. EPA and the National Highway Traffic Safety Administration, in accordance with California Air Resources Board recommendations. Operational emissions were quantified for an assumed initial operational year of 2024. GHG emissions were also quantified for year 2030 conditions. All other modeling assumptions were based on default parameters contained in the CalEEMod computer program for the northern portion of Santa Barbara County. Mobile-source emissions of criteria air pollutants and GHGs were quantified with and without incorporation of the following transit and pedestrian measures:

- Increase Transit Accessibility. For projects located on an established transit route, provide improved public transit amenities (e.g.: covered transit turnouts, direct pedestrian access, covered bench, smart signage, route information displays, lighting, etc.)
- Improve the Pedestrian Network. Include on-site circulation design elements in parking lots to reduce vehicle queuing and improve the pedestrian environment. Link on-site pedestrian walkways to adjacent off-site pedestrian walkways.

THRESHOLDS OF SIGNIFICANCE

Criteria Air Pollutants

Thresholds of significance were derived from the Santa Barbara County Air Pollution Control District's (SBCAPCD) *Scope and Content for Air Quality Sections in Environmental Documents*.³ Accordingly, construction-related emissions would be considered to have a potentially significant impact if emissions were to exceed 25 tons/year of either reactive organic gases (ROG) or oxides of nitrogen (NO_x). In addition, the SBCAPCD recommends incorporation of standard mitigation measures to minimize localized air quality impacts commonly associated with construction activities and to ensure consistency with air quality attainment and maintenance efforts. Long-term air quality impacts would be considered to have a potentially significant impact if operation of the project would:

- Emit (from all project sources, including area, stationary, and mobile sources) more than 240 lbs/day of either ROG or NO_x, or more than 80 lbs/day of PM₁₀;
- Emit (from mobile sources only) more than 25 lbs/day of either ROG or NO_x;

³ SBCAPCD. June 2017. *Scope and Content of Air Quality Section in Environmental Documents*. Available at website url:

<https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf>.



GHG Emissions

GHG emissions were evaluated based on a GHG-efficiency threshold. The GHG-efficiency threshold was based on AB 32 year 2020 GHG-reduction target and adjusted to account for the more stringent year 2030 GHG-reduction target mandated by SB 32. The GHG-efficiency threshold was calculated by dividing the GHG emissions inventory goal (allowable emissions) by the estimated service population (SP). The efficiency threshold was calculated based on ARB's GHG emissions inventory identified in the *2017 Scoping Plan Update*. Emissions sectors that do not apply to the proposed project (i.e., industrial, agriculture) were excluded from the calculation. The GHG emissions inventory for the land use sectors applicable to the proposed project were then divided by the projected service population. The service population was calculated based on the most current population and employment projections derived from the California Department of Finance Demographic Research Unit and California Employment Development Department, respectively. The methodology used for quantification of the target efficiency threshold applied to the proposed project is summarized in Table 1. Refer to Appendix A for calculation assumptions. Project-generated GHG emissions would exceed the efficiency threshold of 3.3 MTCO₂e/SP/year in 2030 would be considered to have a potentially significant impact on the environment that could conflict with GHG-reduction planning efforts. To be conservative, amortized construction-generated GHG emissions were included in annual operational GHG emissions estimates.

Table 1. Project-Level GHG Efficiency Threshold Calculation

	2030
Land Use Sectors GHG Emissions Target ¹	213,000,000
Population ²	43,939,250
Employment ³	20,795,940
Service Population (SP)	64,735,190
GHG Efficiency Threshold (MTCO ₂ e/SP/yr)	3.3
<i>Note: Employment data for interim years are estimated based on proportionality with population trends based on historical data. Based on AB 32 Scoping Plan's land use inventory sectors for years 2024 and 2030; Includes transportation sources.</i>	
<i>1. Based on ARB 2017 Climate Scoping Plan Update/SB 32 Scoping Plan Emissions Sector targets.</i>	
<i>2. California Department of Finance Demographic Research Unit. 2019. Report P-1 "State Population Projections (2010 - 2060)".</i>	
<i>3. California Employment Development Department. Employment Projections Labor Market Information Resources and Data, "CA Long-Term. 2016-2026 Statewide Employment Projections". Projected year 2030 employment data was projected based on the average-annual increase for years 2016 through 2026.</i>	
<i>Refer to Appendix A for calculation assumptions.</i>	

SUMMARY OF EMISSIONS MODELING RESULTS

Short-Term Construction

Criteria Air Pollutants

Construction generated emissions, without and with implementation of fugitive dust control measures, are summarized in Tables 2 and 3, respectively. As shown, construction emissions would not exceed SBCAPCD's recommended thresholds of significance of 25 tons/year for either ROG or NO_x. The SBCAPCD has not adopted significance thresholds for other construction-related emissions, including fugitive dust. However, the SBCAPCD recommends inclusion of control measures



to minimize localized impacts to nearby land uses and sensitive receptors. Recommended control measures include dust control measures, as well as, measures to reduce diesel-exhaust emissions from mobile sources. SBCAPCD-recommended significance thresholds and control measures are identified in SBCAPCD's *Scope and Content of Air Quality Section in Environmental Documents* (2017).⁴

GHG Emissions

Annual construction-generated GHG emissions would range from approximately 63.8 to 502.6 MTCO_{2e}/year. In total, project construction would generate approximately 566.4 MTCO_{2e}. When amortized over an approximate 25-year project life, annual construction-generated GHG emissions would average approximately 22.7 MTCO_{2e}/year.

Long-Term Operations

Criteria Air Pollutants

Daily operational emissions of criteria air pollutants for opening year conditions, without and with implementation of pedestrian and transit improvements, are summarized in Tables 4 and 5, respectively. For informational purposes, annual operational emissions of criteria air pollutants have also been quantified and are summarized in Tables 6 and 7. As indicated in Tables 4 and 5, total daily operational emissions from all emission sources (e.g., area, energy use, and mobile) would not exceed the SBCAPCD's significance thresholds of 240 lbs/day of ROG or NO_x, or 80 lbs/day of PM₁₀. However, maximum daily emissions of NO_x from mobile sources would exceed the SBCAPCD's significance threshold of 25 lbs/day. The SBCAPCD has not identified recommended significance thresholds for annual emissions of criteria air pollutants.

GHG Emissions

Annual GHG emissions for opening year 2024 conditions, without and with implementation of pedestrian and transit improvements, are summarized in Tables 6 and 7, respectively. Operational GHG emissions for year 2024 conditions are provided for informational purposes. Annual GHG emissions for future year 2030 conditions are summarized in Tables 8 and 9, respectively. With the inclusion of amortized construction GHG emissions, year 2024 operational emissions would total approximately 2,030 MTCO_{2e}/year without implementation of pedestrian improvements. With continued improvements in vehicle emission standards, annual operational emissions are projected to decrease to approximately 1,834 MTCO_{2e}/year by year 2030. With the implementation of measures to promote the use of alternative means of transportation (e.g., pedestrian, bicycle, and transit improvements), annual operational GHG emissions would be reduced to approximately 1,999 MTCO_{2e}/year and 1,807 MTCO_{2e}/year for years 2023 and 2030, respectively.

The service population (SP) for nonresidential development is typically quantified based on the estimated number of on-site employees. Based on information provided, the proposed project is estimated to have a total of approximately 197 on-site employees. Based on this estimate, operational GHG emissions, with the inclusion of measures to promote alternative means of transportation, would total approximately 9.2 MTCO_{2e}/SP in year 2030.

⁴ SBCAPCD. June 2017. *Scope and Content of Air Quality Section in Environmental Documents*. Available at website url: <https://www.ourair.org/wp-content/uploads/ScopeContentJune2017-LimitedUpdate.pdf>.



Project-generated GHG emissions would exceed the thresholds of significance. To reduce operational emissions to below the year 2030 GHG-reduction target threshold of 3.3 MTCO₂e/SP, the project would need to reduce operational GHG emissions by an additional 5.9 MTCO₂e/SP (or 1,162 MTCO₂e/year). This reduction may be accomplished through implementation of a GHG-reduction program and/or the purchase of carbon offsets from a validated source.



Table 2. Annual Construction Emissions without Fugitive Dust Control Measures

YEAR	ANNUAL EMISSIONS WITHOUT DUST CONTROL MEASURES													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
2022	0.3	2.8	2.6	0.0	0.3	0.1	0.4	0.1	0.1	0.2	500.3	0.1	0.0	502.6
2023	1.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.5	0.0	0.0	63.8
SBCAPCD THRESHOLD:	25	25	Amortized (25-Year):										22.7	
EXCEEDS THRESHOLD?:	NO	NO												

Table 3. Annual Construction Emissions with Fugitive Dust Control Measures

YEAR	ANNUAL EMISSIONS WITH DUST CONTROL MEASURES													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
2022	0.3	2.8	2.6	0.0	7.2	0.1	7.3	3.9	0.1	4.0	500.3	0.1	0.0	502.6
2023	1.0	0.3	0.4	0.0	1.0	0.0	1.0	0.3	0.0	0.3	63.5	0.0	0.0	63.8
SBCAPCD THRESHOLD:	25	25												
EXCEEDS THRESHOLD?:	NO	NO												



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Appendix A

Emissions Modeling Assumptions & Results



GHG EFFICIENCY THRESHOLD CALCULATION

	YEAR										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
POPULATION	40,639,392	40,980,939	41,321,565	41,659,526	41,994,283	42,326,397	42,655,695	42,981,484	43,304,691	43,624,393	43,939,250
EMPLOYMENT	18,862,840	19,056,150	19,249,460	19,442,770	19,636,080	19,829,390	20,022,700	20,216,010	20,409,320	20,602,630	20,795,940
SERVICE POPULATION	59502232	60037089	60571025	61102296	61,630,363	62155787	62678395	63197494	63714011	64227023	64735190

*Based on statewide projections.

GHG EMISSIONS INVENTORY

LAND USE SECTOR (TOTAL):	272.85	267	261	255	249	243	237	231	225	219	213
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GHG EFFICIENCY TARGET/THRESHOLD

LAND USE SECTOR (TOTAL):	4.6	4.4	4.3	4.2	4.0	3.9	3.8	3.7	3.5	3.4	3.3
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Sources:

California Air Resources Board. California 1990 Greenhouse Gas Emissions Level and 2020 Limit — by Sector and Activity (Land Use-driven sectors only) MMT CO₂e - (based upon IPCC Fourth Assessment Report Global Warming Potentials)

California Department of Finance Demographic Research Unit. 2019. Report P-1 "State Population Projections (2010 - 2060), Total Population by County". <http://www.dof.ca.gov/Forecasting/Demographics/Projections/>.

California Employment Development Department. 2019. Employment Projections Labor Market Information Resources and Data, "CA Long-Term. 2016-2026 Statewide Employment Projections". <https://www.labormarketinfo.edd.ca.gov/data/employment-projections.html>.

Employment data for interim years is estimated based on proportionality with population trends based on historical data.



ESTIMATED GHG EMISSIONS BY SECTOR

SECTOR	1990 GHG INVENTORY LOCALLY APPROPRIATE SECTORS (MMCO ₂ e)
ON-ROAD TRANSPORTATION	
PASSENGER CARS	63.77
LIGHT DUTY TRUCKS	44.75
MOTORCYCLES	0.43
HEAVY DUTY TRUCKS	29.03
FREIGHT	0.02
SUBTOTAL	138
ELECTRICITY GENERATION IN-STATE	
COMMERCIAL COGENERATION	0.7
MERCHANT OWNED	2.33
TRANSMISSION AND DISTRIBUTION	1.56
UTILITY OWNED	29.92
SUBTOTAL	34.51
ELECTRICITY GENERATION IN-STATE	
SPECIFIED IMPORTS	29.61
TRANSMISSION AND DISTRIBUTION	1.02
UNSPECIFIED IMPORTS	30.96
SUBTOTAL	61.59
RESIDENTIAL	
HOUSEHOLD USE	29.66
SUBTOTAL	29.66
INDUSTRIAL	
LANDFILLS	6.26
DOMESTIC WASTEWATER TREATMENT	2.83
SUBTOTAL	9.09
TOTAL EMISSIONS	272.85

SECTOR	CHANGE IN GHG EMISSIONS BY SECTOR (MMTCO ₂ e)		
	1990	2030 SCOPING PLAN RANGES	% CHANGE FROM 1990
AGRICULTURE	26	24-25	-8 TO -4
RESIDENTIAL AND COMMERCIAL	44	38-40	-14 TO -9
ELECTRIC POWER	108	30-53	-72 TO -51
HIGH GWP	3	8-11	267 TO 367
INDUSTRIAL	98	83-90	-15 TO -8
RECYCLING AND WASTE	7	8-9	14 TO 29
TRANSPORTATION (INCLUDING TCU)	152	103-111	-32 TO -27
NATURAL WORKING LANDS NET SINK	-7	TBD	TBD
SUB TOTAL	431	294-339	-32 TO -21
CAP-AND-TRADE PROGRAM	0	34-79	0
TOTAL	431	260	-40
TOTAL (LOCALLY APPROPRIATE*):		213	

*EXCLUDES AGRICULTURE & INDUSTRIAL SECTOR LAND USES NOT CONSIDERED LOCALLY APPROPRIATE.

SUMMARY OF CALEEMOD MODELING ASSUMPTIONS

Construction Start Month & Year:	Jan-22
Construction Duration (Estimated Total Months):	CalEEMod Defaults
Off-Road Equipment	CalEEMod Defaults
Amount of Material to be Exported/Imported (cyds):	Balanced on Site
Total Number of Days Export/Import would occur:	NA
Total Surface Area to be Disturbed (Acres):	6.65
Maximum Surface Area to be Disturbed Daily (Acres):	6.65
Total Building Floor Area to be Demolished (SF):	34,991 SF

Project Land Uses, Service Population, Vehicle Trips

	<u>SIZE (KSF)</u>	<u>TRIP GEN w/o RED.</u>	<u>DAILY TRIPS w/o REDUCTIONS</u>
Office	24.00	11.083	266
Commercial/Retail	41.79	79.476	3321
Drive Thru Coffee	2.70	820.370	2215
Gas Station & Car Wash	3.94	261.663	1032
Asphalt Parking/Paved Surface (5 Acres)	217.24		6834
Number of Employees	197		

Table 3: Project Trip Generation

Project Trip Generation								
Land Use	Size	Daily Total	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Office ¹	24,000 SF	266	42	7	49	5	24	29
Commercial/Retail ²	41,786 SF	3,321	107	66	173	137	148	285
Drive Thru Coffee ³	2,700 SF	2,215	122	118	240	59	58	117
Gas Station & Car Wash ⁴	6 Pumps	1,032	31	31	62	42	42	84
Subtotal		6,834	302	222	524	243	272	515
<i>Internal Capture Trips⁵</i>		<i>-500</i>	<i>-32</i>	<i>-32</i>	<i>-64</i>	<i>-50</i>	<i>-50</i>	<i>-100</i>
<i>Existing Trips from Project Site⁶</i>	34,975 SF	<i>-544</i>	<i>-11</i>	<i>-3</i>	<i>-14</i>	<i>-3</i>	<i>-11</i>	<i>-14</i>
Total External Trips		5,790	259	187	446	190	211	401
<i>Pass-by Trips (Commercial/Retail)^{2,7}</i>		<i>-390</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-39</i>	<i>-39</i>	<i>-78</i>
<i>Pass-by Trips (Drive-Thru Coffee)^{3,7}</i>		<i>-160</i>	<i>-53</i>	<i>-52</i>	<i>-105</i>	<i>-16</i>	<i>-16</i>	<i>-32</i>
<i>Pass-by Trips (Gas Station & Car Wash)^{4,7}</i>		<i>-180</i>	<i>-18</i>	<i>-18</i>	<i>-36</i>	<i>-18</i>	<i>-18</i>	<i>-36</i>
<i>Total Pass-By Trips</i>		<i>-730</i>	<i>-71</i>	<i>-70</i>	<i>-141</i>	<i>-73</i>	<i>-73</i>	<i>-146</i>
Net New Vehicle Trips		5,060	188	117	305	117	138	255

SF = Square Feet; ITE = Institute of Transportation Engineers.
 1. ITE Land Use Code #710, General Office Building. Fitted curve equations used.
 2. ITE Land Use Code #820, Shopping Center. Fitted curve equations used. AM pass-by not given; PM pass-by 34%.
 3. ITE Land Use Code #937, Coffee/Donut Shop w/Drive-Through Window. Average rates used. Assumed AM pass-by 50%; PM pass-by 34% based on similar land uses.
 4. ITE Land Use Code #944, Gasoline/Service Station. Average rates used. AM pass-by 58%; PM pass-by 42%.
 5. AM (12%) & PM (19%) Internal Trips from TripGen 10 software; Daily Internal Trips assumed five times PM internal trips.
 6. ITE Land Use Code #130, Industrial Park. Fitted curve equation used for daily. Average rates used for AM and PM.
 7. PM peak hour pass-by trips multiplied by a factor of 5 to determine daily pass-by trips.
 Source: ITE Trip Generation Manual, 10th Ed. and Trip Generation Handbook, 3rd Ed., 2017; CCTC, 2020.

6834 trips without reductions
 5060 trips with reductions
 1774 reduction
25.96% reduction

ONSITE FEATURES

IMPROVED PEDESTRIAN ACCESS/CONNECTIONS - TRAFFIC MITIGATION
 BICYCLE LANES ON BLOSSER - TRAFFIC MITIGATION
 LOW-FLOW WATER FIXTURES REQUIRED PER CURRENT BUILDING CODE
 WATER-EFFICIENT IRRIGATION REQUIRED PER CURRENT BUILDING CODE

CONSTRUCTION EMISSIONS SUMMARY

YEAR	ANNUAL EMISSIONS WITHOUT DUST CONTROL MEASURES													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
2022	0.3	2.8	2.6	0.0	0.3	0.1	0.4	0.1	0.1	0.2	500.3	0.1	0.0	502.6
2023	1.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.5	0.0	0.0	63.8
SBCAPCD THRESHOLD:	25	25	Amortized (25-Year):											
EXCEEDS THRESHOLD?:	NO	NO												
22.66														

YEAR	ANNUAL EMISSIONS WITH DUST CONTROL MEASURES													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
2022	0.3	2.8	2.6	0.0	7.2	0.1	7.3	3.9	0.1	4.0	500.3	0.1	0.0	502.6
2023	1.0	0.3	0.4	0.0	1.0	0.0	1.0	0.3	0.0	0.3	63.5	0.0	0.0	63.8
SBCAPCD THRESHOLD:	25	25												
EXCEEDS THRESHOLD?:	NO	NO												

OPERATIONAL EMISSIONS SUMMARY - YEAR 2023 WINTER CONDITIONS

SOURCE	DAILY WINTER EMISSIONS WITHOUT PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
NATURAL GAS USE	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
MOBILE WITH SAFE VEH. ADJ. FACTORS	13.4	40.0	100.9	0.2	17.9	0.2	18.1	4.8	0.2	5.0				
MOBILE WITH INTERNAL CAPTURE & PASSBYS	9.9	29.6	74.7	0.1	13.3	0.1	13.4	3.6	0.1	3.7				
TOTAL WITH ADJUSTMENTS:	12.1	29.9	74.9	0.2	13.3	0.2	13.4	3.6	0.2	3.7				
SBCAPCD THRESHOLD (ALL SOURCES):	80													
EXCEEDS THRESHOLD?:	NO	NO	NO											
SBCAPCD THRESHOLD (MOBILE SOURCES):	25	25												
EXCEEDS THRESHOLD?:	NO	YES												

1. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

SOURCE	DAILY WINTER EMISSIONS WITH PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
NATURAL GAS USE	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
MOBILE WITH SAFE VEH. ADJ. FACTORS	13.4	39.8	100.0	0.2	17.5	0.2	17.7	4.7	0.2	4.9				
MOBILE WITH INTERNAL CAPTURE & PASSBYS	9.9	29.5	74.0	0.1	13.0	0.1	13.1	3.5	0.1	3.6				
TOTAL WITH ADJUSTMENTS:	12.1	29.8	74.2	0.2	13.0	0.2	13.1	3.5	0.2	3.6				
SBCAPCD THRESHOLD (ALL SOURCES):	240	240					80							
EXCEEDS THRESHOLD?:	NO	NO					NO							
SBCAPCD THRESHOLD (MOBILE SOURCES):	25	25												
EXCEEDS THRESHOLD?:	NO	YES												

1. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

OPERATIONAL EMISSIONS SUMMARY - YEAR 2023 SUMMER CONDITIONS

SOURCE	DAILY SUMMER EMISSIONS WITHOUT PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
NATURAL GAS USE	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
MOBILE WITH SAFE VEH. ADJ. FACTORS	13.8	39.3	89.1	0.2	17.9	0.2	18.1	4.8	0.2	5.0				
MOBILE WITH INTERNAL CAPTURE & PASSBYS	10.2	29.1	66.0	0.1	13.3	0.1	13.4	3.6	0.1	3.7				
TOTAL WITH ADJUSTMENTS:	12.3	29.4	66.2	0.2	13.3	0.2	13.4	3.6	0.2	3.7				
SBCAPCD THRESHOLD (ALL SOURCES):	240	240					80							
EXCEEDS THRESHOLD?:	NO	NO					NO							
SBCAPCD THRESHOLD (MOBILE SOURCES):	25	25												
EXCEEDS THRESHOLD?:	NO	YES												

1. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

SOURCE	DAILY SUMMER EMISSIONS WITH PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
NATURAL GAS USE	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
MOBILE WITH SAFE VEH. ADJ. FACTORS	13.8	39.1	88.3	0.2	17.5	0.2	17.7	4.7	0.2	4.9				
MOBILE WITH INTERNAL CAPTURE & PASSBYS	10.2	28.9	65.4	0.1	13.0	0.1	13.1	3.5	0.1	3.6				
TOTAL WITH ADJUSTMENTS:	12.3	29.2	65.6	0.2	13.0	0.2	13.1	3.5	0.2	3.6				
SBCAPCD THRESHOLD (ALL SOURCES):	240	240					80							
EXCEEDS THRESHOLD?:	NO	NO					NO							
SBCAPCD THRESHOLD (MOBILE SOURCES):	25	25												
EXCEEDS THRESHOLD?:	NO	YES												

1. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

OPERATIONAL EMISSIONS SUMMARY - YEAR 2024 ANNUAL CONDITIONS

SOURCE	ANNUAL YR 2024 EMISSIONS WITHOUT PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ELECTRICITY USE (2016 T24)											204.8	0.0	0.0	205.7
ELECTRICITY USE (2019 T24)											143.4	0.0	0.0	144.0
NATURAL GAS USE	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.7	0.0	0.0	57.0
WATER USE											12.3	0.0	0.0	14.1
WASTE											9.1	0.5	0.0	20.3
MOBILE WITH SAFE VEH. ADJ. FACTORS	1.6	4.8	11.6	0.0	2.3	0.0	2.3	0.6	0.0	0.6	2436.7	0.1	0.0	2440.2
MOBILE WITH INTERNAL CAPTURE & PASSBYS	1.2	3.6	8.6	0.0	1.7	0.0	1.7	0.4	0.0	0.4	1804.1	0.1	0.0	1806.7
TOTAL WITH ADJUSTMENTS:	1.6	3.6	8.6	0.0	1.7	0.0	1.7	0.4	0.0	0.4	2004.2	0.1	0.0	2007.7

1. Electricity use was adjusted to reflect compliance with 2019 Building Energy Efficiency Standards. Under the new standards, nonresidential buildings will use about 30 percent less energy, compared to previous standards. (California Energy Commission. May 9, 2018. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation.

2. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

3. Water use adjusted to reflect compliance with current building codes requiring the use of low-flow water fixtures and water-efficient irrigation systems. Waste generation emissions assumes a minimum diversion rate of 60% based on current diversion rates for the north county area.

SOURCE	ANNUAL YR 2024 EMISSIONS WITH PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ELECTRICITY USE (2016 T24)											204.8	0.0	0.0	205.7
ELECTRICITY USE (2019 T24)											143.4	0.0	0.0	144.0
NATURAL GAS USE	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.7	0.0	0.0	57.0
WATER USE											12.3	0.0	0.0	14.1
WASTE											9.1	0.5	0.0	20.3
MOBILE WITH SAFE VEH. ADJ. FACTORS	1.5	4.8	11.6	0.0	2.2	0.0	2.3	0.6	0.0	0.6	2395.9	0.1	0.0	2398.4
MOBILE WITH INTERNAL CAPTURE & PASSBYS	1.1	3.6	8.6	0.0	1.6	0.0	1.7	0.4	0.0	0.4	1773.9	0.1	0.0	1775.7
TOTAL WITH ADJUSTMENTS:	1.5	3.6	8.6	0.0	1.6	0.0	1.7	0.4	0.0	0.4	1974.0	0.1	0.0	1976.7

1. Electricity use was adjusted to reflect compliance with 2019 Building Energy Efficiency Standards. Under the new standards, nonresidential buildings will use about 30 percent less energy, compared to previous standards. (California Energy Commission. May 9, 2018. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation.

2. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

3. Water use adjusted to reflect compliance with current building codes requiring the use of low-flow water fixtures and water-efficient irrigation systems. Waste generation emissions assumes a minimum diversion rate of 60% based on current diversion rates for the north county area.

OPERATIONAL EMISSIONS SUMMARY - YEAR 2030 ANNUAL CONDITIONS

SOURCE	ANNUAL YR 2030 EMISSIONS WITHOUT PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA											0.0	0.0	0.0	0.0
ELECTRICITY USE (2016 T24)											144.8	0.0	0.0	145.4
ELECTRICITY USE (2019 T24)											101.4	0.0	0.0	101.8
NATURAL GAS USE											56.7	0.0	0.0	57.0
WATER USE											9.4	0.0	0.0	11.2
WASTE											9.1	0.5	0.0	20.3
MOBILE WITH SAFE VEH. ADJ. FACTORS											2229.3	0.1	0.0	2232.3
MOBILE WITH INTERNAL CAPTURE & PASSBYS											1650.5	0.1	0.0	1652.8
TOTAL WITH ADJUSTMENTS:											1808.6	0.1	0.0	1811.5

1. Electricity use was adjusted to reflect compliance with 2019 Building Energy Efficiency Standards. Under the new standards, nonresidential buildings will use about 30 percent less energy, compared to previous standards. (California Energy Commission. May 9, 2018. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation.

2. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

3. Water use adjusted to reflect compliance with current building codes requiring the use of low-flow water fixtures and water-efficient irrigation systems. Waste generation emissions assumes a minimum diversion rate of 60% based on current diversion rates for the north county area.

SOURCE	ANNUAL YR 2030 EMISSIONS WITH PEDESTRIAN & TRANSIT IMPROVEMENTS													
	ROG	NOX	CO	SOX	PM10			PM2.5			GHG Emissions (MT/Yr)			
					FUG	EXH	TOT	FUG	EXH	TOT	CO2	CH4	N2O	MTCO2e
AREA											0.0	0.0	0.0	0.0
ELECTRICITY USE (2016 T24)											144.8	0.0	0.0	145.4
ELECTRICITY USE (2019 T24)											101.4	0.0	0.0	101.8
NATURAL GAS USE											56.7	0.0	0.0	57.0
WATER USE											9.4	0.0	0.0	11.2
WASTE											9.1	0.5	0.0	20.3
MOBILE WITH SAFE VEH. ADJ. FACTORS											2192.5	0.1	0.0	2195.4
MOBILE WITH INTERNAL CAPTURE & PASSBYS											1623.3	0.1	0.0	1625.5
TOTAL WITH ADJUSTMENTS:											1781.4	0.1	0.0	1784.3

1. Electricity use was adjusted to reflect compliance with 2019 Building Energy Efficiency Standards. Under the new standards, nonresidential buildings will use about 30 percent less energy, compared to previous standards. (California Energy Commission. May 9, 2018. Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation.

2. Mobile source emissions were adjusted to reflect internal capture and passby trips, based on information derived from the traffic analysis prepared for this project (CCTC 2020). Includes SAFE Vehicle Off-Model Adjustment Factors.

3. Water use adjusted to reflect compliance with current building codes requiring the use of low-flow water fixtures and water-efficient irrigation systems. Waste generation emissions assumes a minimum diversion rate of 60% based on current diversion rates for the north county area.

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.00	1000sqft	0.55	24,000.00	0
Parking Lot	5.00	Acre	5.00	217,800.00	0
Fast Food Restaurant with Drive Thru	2.70	1000sqft	0.06	2,700.00	0
Convenience Market With Gas Pumps	3.94	1000sqft	0.09	3,940.00	0
Strip Mall	41.79	1000sqft	0.96	41,790.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.1	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	417.62	CH4 Intensity (lb/MW hr)	0.019	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Includes RPS adjustment factors. Does not include participation in C3 Energy.

Land Use -

Construction Phase - Const schedule based on model defaults

Off-road Equipment - Const equipment based on model defaults

Trips and VMT - Const vehicle trips based on model defaults

Demolition - 34991 sf to be demolished based on information provided

Grading - Material balanced on site.

Architectural Coating - Arch coating based on model defaults

Vehicle Trips - Operational vehicle trips based on trip-gen from traffic analysis. Does not include internal capture or passby trips. Emissions associated with trip reductions calculated separately.

Energy Use -

Construction Off-road Equipment Mitigation - Includes 50%CE for watering veh travel ways, 61%CE for watering graded surfaces, 15 mph onsite speed limit. T3 equipment included for informational purposes.

Mobile Land Use Mitigation - includes onsite and connecting offsite improved pedestrian network per traffic analysis

Energy Mitigation - Compliance with current building code calculated separately

Water Mitigation - includes installation of low-flow fixtures and water-efficient irrigation per current building code

Waste Mitigation - based on current diversion rate of 60%

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	641.35	417.62
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	WD_TR	845.60	261.66
tblVehicleTrips	WD_TR	496.12	820.37
tblVehicleTrips	WD_TR	11.03	11.08
tblVehicleTrips	WD_TR	44.32	79.48

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					
2022	0.2914	2.8045	2.5857	5.5800e-003	0.2812	0.1167	0.3980	0.1153	0.1093	0.2246			500.3242	0.0930	0.0000	502.6481
2023	0.9546	0.3002	0.3674	7.1000e-004	0.0122	0.0129	0.0252	3.3200e-003	0.0121	0.0154			63.4954	0.0132	0.0000	63.8242
Maximum	0.9546	2.8045	2.5857	5.5800e-003	0.2812	0.1167	0.3980	0.1153	0.1093	0.2246			500.3242	0.0930	0.0000	502.6481

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					
2022	0.1425	2.4543	2.8386	5.5800e-003	0.1753	0.1177	0.2930	0.0628	0.1176	0.1804			500.3238	0.0930	0.0000	502.6477
2023	0.9396	0.3102	0.4110	7.1000e-004	0.0122	0.0162	0.0284	3.3200e-003	0.0162	0.0195			63.4954	0.0132	0.0000	63.8241
Maximum	0.9396	2.4543	2.8386	5.5800e-003	0.1753	0.1177	0.2930	0.0628	0.1176	0.1804			500.3238	0.0930	0.0000	502.6477

	ROG	NOx	CO	SO2	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	13.16	10.96	-10.04	0.00	36.08	-3.25	24.03	44.23	-10.15	16.72	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	0.8774	0.6152
2	4-1-2022	6-30-2022	0.7339	0.6552
3	7-1-2022	9-30-2022	0.7419	0.6624
4	10-1-2022	12-31-2022	0.7439	0.6643
5	1-1-2023	3-31-2023	1.2475	1.2429
		Highest	1.2475	1.2429

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Energy	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			261.5399	0.0104	3.0000e-003	262.6945
Mobile	1.5455	4.7730	11.6308	0.0256	2.2885	0.0242	2.3128	0.6144	0.0226	0.6369			2,362.3430	0.1385	0.0000	2,365.8054
Waste						0.0000	0.0000		0.0000	0.0000			22.6644	1.1239	0.0000	50.7607
Water						0.0000	0.0000		0.0000	0.0000			14.8264	0.0109	6.6300e-003	17.0741
Total	1.9398	4.8251	11.6753	0.0259	2.2885	0.0282	2.3167	0.6144	0.0265	0.6409			2,661.3750	1.2836	9.6300e-003	2,696.3362

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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	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Energy	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			261.5399	0.0104	3.0000e-003	262.6945
Mobile	1.5410	4.7438	11.5222	0.0251	2.2428	0.0239	2.2667	0.6021	0.0223	0.6243			2,322.7282	0.1370	0.0000	2,326.1536
Waste						0.0000	0.0000		0.0000	0.0000			9.0658	0.4495	0.0000	20.3043
Water						0.0000	0.0000		0.0000	0.0000			12.2982	8.7000e-003	5.3100e-003	14.0981
Total	1.9353	4.7959	11.5667	0.0254	2.2428	0.0278	2.2706	0.6021	0.0262	0.6283			2,605.6334	0.6057	8.3100e-003	2,623.2519

	ROG	NOx	CO	SO2	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	0.23	0.61	0.93	1.66	2.00	1.17	1.99	2.00	1.17	1.97	0.00	0.00	2.09	52.82	13.71	2.71

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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/11/2022	5	10	
3	Grading	Grading	2/12/2022	3/11/2022	5	20	
4	Building Construction	Building Construction	3/12/2022	1/27/2023	5	230	
5	Paving	Paving	1/28/2023	2/24/2023	5	20	
6	Architectural Coating	Architectural Coating	2/25/2023	3/24/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 108,645; Non-Residential Outdoor: 36,215; Striped Parking Area: 13,068 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	159.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	48.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					
Fugitive Dust					0.0177	0.0000	0.0177	2.6800e-003	0.0000	2.6800e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116			33.9902	9.5500e-003	0.0000	34.2289
Total	0.0264	0.2572	0.2059	3.9000e-004	0.0177	0.0124	0.0302	2.6800e-003	0.0116	0.0142			33.9902	9.5500e-003	0.0000	34.2289

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3.2 Demolition - 2022**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	5.7000e-004	0.0205	6.5600e-003	6.0000e-005	1.3500e-003	7.0000e-005	1.4300e-003	3.7000e-004	7.0000e-005	4.4000e-004			6.0659	6.1000e-004	0.0000	6.0811
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	9.9000e-004	0.0208	9.4900e-003	7.0000e-005	2.2800e-003	8.0000e-005	2.3600e-003	6.2000e-004	8.0000e-005	6.9000e-004			6.7708	6.3000e-004	0.0000	6.7865

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					6.9100e-003	0.0000	6.9100e-003	1.0500e-003	0.0000	1.0500e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	9.2500e-003	0.1831	0.2467	3.9000e-004		8.6300e-003	8.6300e-003		8.6300e-003	8.6300e-003			33.9902	9.5500e-003	0.0000	34.2289
Total	9.2500e-003	0.1831	0.2467	3.9000e-004	6.9100e-003	8.6300e-003	0.0155	1.0500e-003	8.6300e-003	9.6800e-003			33.9902	9.5500e-003	0.0000	34.2289

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3.2 Demolition - 2022**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	5.7000e-004	0.0205	6.5600e-003	6.0000e-005	1.3500e-003	7.0000e-005	1.4300e-003	3.7000e-004	7.0000e-005	4.4000e-004			6.0659	6.1000e-004	0.0000	6.0811
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	9.9000e-004	0.0208	9.4900e-003	7.0000e-005	2.2800e-003	8.0000e-005	2.3600e-003	6.2000e-004	8.0000e-005	6.9000e-004			6.7708	6.3000e-004	0.0000	6.7865

3.3 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0903	8.0600e-003	0.0984	0.0497	7.4200e-003	0.0571			16.7197	5.4100e-003	0.0000	16.8549

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3.3 Site Preparation - 2022**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
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	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232
Total	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194			0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	4.6600e-003	0.0953	0.1148	1.9000e-004	0.0352	4.7300e-003	0.0400	0.0194	4.7300e-003	0.0241			16.7197	5.4100e-003	0.0000	16.8549

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3.3 Site Preparation - 2022**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
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	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232
Total	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232

3.4 Grading - 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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003			26.0548	8.4300e-003	0.0000	26.2654
Total	0.0195	0.2086	0.1527	3.0000e-004	0.0655	9.4100e-003	0.0749	0.0337	8.6600e-003	0.0423			26.0548	8.4300e-003	0.0000	26.2654

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3.4 Grading - 2022**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
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054

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					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131			0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.1484	0.1899	3.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003			26.0547	8.4300e-003	0.0000	26.2654
Total	7.2600e-003	0.1484	0.1899	3.0000e-004	0.0256	7.5600e-003	0.0331	0.0131	7.5600e-003	0.0207			26.0547	8.4300e-003	0.0000	26.2654

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3.4 Grading - 2022**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
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054

3.5 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	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799			243.3115	0.0583	0.0000	244.7688
Total	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799			243.3115	0.0583	0.0000	244.7688

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3.5 Building Construction - 2022**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
Vendor	0.0154	0.4863	0.1604	1.1700e-003	0.0293	1.3400e-003	0.0306	8.4500e-003	1.2800e-003	9.7300e-003			115.6055	8.9900e-003	0.0000	115.8302
Worker	0.0335	0.0261	0.2358	6.3000e-004	0.0746	4.6000e-004	0.0750	0.0198	4.2000e-004	0.0202			56.7438	1.6400e-003	0.0000	56.7847
Total	0.0489	0.5124	0.3962	1.8000e-003	0.1039	1.8000e-003	0.1057	0.0283	1.7000e-003	0.0300			172.3493	0.0106	0.0000	172.6149

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	0.0708	1.4937	1.8767	2.8300e-003		0.0949	0.0949		0.0949	0.0949			243.3112	0.0583	0.0000	244.7685
Total	0.0708	1.4937	1.8767	2.8300e-003		0.0949	0.0949		0.0949	0.0949			243.3112	0.0583	0.0000	244.7685

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3.5 Building Construction - 2022**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
Vendor	0.0154	0.4863	0.1604	1.1700e-003	0.0293	1.3400e-003	0.0306	8.4500e-003	1.2800e-003	9.7300e-003			115.6055	8.9900e-003	0.0000	115.8302
Worker	0.0335	0.0261	0.2358	6.3000e-004	0.0746	4.6000e-004	0.0750	0.0198	4.2000e-004	0.0202			56.7438	1.6400e-003	0.0000	56.7847
Total	0.0489	0.5124	0.3962	1.8000e-003	0.1039	1.8000e-003	0.1057	0.0283	1.7000e-003	0.0300			172.3493	0.0106	0.0000	172.6149

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.1439	0.1624	2.7000e-004		7.0000e-003	7.0000e-003		6.5800e-003	6.5800e-003			23.1805	5.5100e-003	0.0000	23.3183
Total	0.0157	0.1439	0.1624	2.7000e-004		7.0000e-003	7.0000e-003		6.5800e-003	6.5800e-003			23.1805	5.5100e-003	0.0000	23.3183

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3.5 Building Construction - 2023**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
Vendor	1.1400e-003	0.0385	0.0138	1.1000e-004	2.7900e-003	6.0000e-005	2.8500e-003	8.1000e-004	6.0000e-005	8.6000e-004			10.8136	8.2000e-004	0.0000	10.8341
Worker	2.9800e-003	2.2200e-003	0.0205	6.0000e-005	7.1000e-003	4.0000e-005	7.1500e-003	1.8900e-003	4.0000e-005	1.9300e-003			5.2022	1.4000e-004	0.0000	5.2057
Total	4.1200e-003	0.0407	0.0343	1.7000e-004	9.8900e-003	1.0000e-004	0.0100	2.7000e-003	1.0000e-004	2.7900e-003			16.0158	9.6000e-004	0.0000	16.0398

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	6.7400e-003	0.1423	0.1787	2.7000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003			23.1805	5.5100e-003	0.0000	23.3183
Total	6.7400e-003	0.1423	0.1787	2.7000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003			23.1805	5.5100e-003	0.0000	23.3183

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3.5 Building Construction - 2023**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
Vendor	1.1400e-003	0.0385	0.0138	1.1000e-004	2.7900e-003	6.0000e-005	2.8500e-003	8.1000e-004	6.0000e-005	8.6000e-004			10.8136	8.2000e-004	0.0000	10.8341
Worker	2.9800e-003	2.2200e-003	0.0205	6.0000e-005	7.1000e-003	4.0000e-005	7.1500e-003	1.8900e-003	4.0000e-005	1.9300e-003			5.2022	1.4000e-004	0.0000	5.2057
Total	4.1200e-003	0.0407	0.0343	1.7000e-004	9.8900e-003	1.0000e-004	0.0100	2.7000e-003	1.0000e-004	2.7900e-003			16.0158	9.6000e-004	0.0000	16.0398

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0269	6.4800e-003	0.0000	20.1888
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.0169	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0269	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023**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
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	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790
Total	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003			20.0268	6.4800e-003	0.0000	20.1888
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.0122	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003			20.0268	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023**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
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	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790
Total	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790

3.7 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9150					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	0.9169	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023**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
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	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411
Total	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9150					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	0.9156	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004			2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023**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
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	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411
Total	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

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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	1.5410	4.7438	11.5222	0.0251	2.2428	0.0239	2.2667	0.6021	0.0223	0.6243			2,322.728 2	0.1370	0.0000	2,326.153 6
Unmitigated	1.5455	4.7730	11.6308	0.0256	2.2885	0.0242	2.3128	0.6144	0.0226	0.6369			2,362.343 0	0.1385	0.0000	2,365.805 4

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	1,030.95	5,706.42	4657.40	934,758	916,063
Fast Food Restaurant with Drive Thru	2,215.00	1,949.48	1465.34	1,507,398	1,477,250
General Office Building	265.99	59.04	25.20	363,044	355,783
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,321.30	1,756.85	853.77	3,232,186	3,167,543
Total	6,833.25	9,471.79	7,001.71	6,037,386	5,916,639

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	6.60	5.50	6.40	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	6.60	5.50	6.40	2.20	78.80	19.00	29	21	50
General Office Building	6.60	5.50	6.40	33.00	48.00	19.00	77	19	4
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Fast Food Restaurant with Drive Thru	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
General Office Building	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			204.8389	9.3200e-003	1.9600e-003	205.6565
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			204.8389	9.3200e-003	1.9600e-003	205.6565
NaturalGas Mitigated	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			56.7010	1.0900e-003	1.0400e-003	57.0379
NaturalGas Unmitigated	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			56.7010	1.0900e-003	1.0400e-003	57.0379

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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	9337.8	5.0000e-005	4.6000e-004	3.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.4983	1.0000e-005	1.0000e-005	0.5013
Fast Food Restaurant with Drive Thru	561276	3.0300e-003	0.0275	0.0231	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003			29.9518	5.7000e-004	5.5000e-004	30.1298
General Office Building	392880	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003			20.9656	4.0000e-004	3.8000e-004	21.0902
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
Strip Mall	99042.3	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004			5.2853	1.0000e-004	1.0000e-004	5.3167
Total		5.7300e-003	0.0521	0.0438	3.2000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003			56.7010	1.0800e-003	1.0400e-003	57.0379

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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	9337.8	5.0000e-005	4.6000e-004	3.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.4983	1.0000e-005	1.0000e-005	0.5013
Fast Food Restaurant with Drive Thru	561276	3.0300e-003	0.0275	0.0231	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003			29.9518	5.7000e-004	5.5000e-004	30.1298
General Office Building	392880	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003			20.9656	4.0000e-004	3.8000e-004	21.0902
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
Strip Mall	99042.3	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004			5.2853	1.0000e-004	1.0000e-004	5.3167
Total		5.7300e-003	0.0521	0.0438	3.2000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003			56.7010	1.0800e-003	1.0400e-003	57.0379

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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	42118.6	7.9785	3.6000e-004	8.0000e-005	8.0103
Fast Food Restaurant with Drive Thru	88344	16.7349	7.6000e-004	1.6000e-004	16.8017
General Office Building	427920	81.0606	3.6900e-003	7.8000e-004	81.3841
Parking Lot	76230	14.4402	6.6000e-004	1.4000e-004	14.4978
Strip Mall	446735	84.6247	3.8500e-003	8.1000e-004	84.9625
Total		204.8389	9.3200e-003	1.9700e-003	205.6565

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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	42118.6	7.9785	3.6000e-004	8.0000e-005	8.0103
Fast Food Restaurant with Drive Thru	88344	16.7349	7.6000e-004	1.6000e-004	16.8017
General Office Building	427920	81.0606	3.6900e-003	7.8000e-004	81.3841
Parking Lot	76230	14.4402	6.6000e-004	1.4000e-004	14.4978
Strip Mall	446735	84.6247	3.8500e-003	8.1000e-004	84.9625
Total		204.8389	9.3200e-003	1.9700e-003	205.6565

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	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Unmitigated	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-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	0.0915					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Total	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-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	0.0915					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Total	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.2982	8.7000e-003	5.3100e-003	14.0981
Unmitigated	14.8264	0.0109	6.6300e-003	17.0741

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	0.291846 / 0.178873	0.5210	3.7000e-004	2.3000e-004	0.5985
Fast Food Restaurant with Drive Thru	0.819541 / 0.0523111	1.1647	1.0400e-003	6.4000e-004	1.3810
General Office Building	4.26561 / 2.61441	7.6148	5.4700e-003	3.3400e-003	8.7471
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	3.09549 / 1.89724	5.5259	3.9700e-003	2.4200e-003	6.3476
Total		14.8264	0.0109	6.6300e-003	17.0741

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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	0.233477 / 0.167962	0.4333	3.0000e-004	1.8000e-004	0.4953
Fast Food Restaurant with Drive Thru	0.655633 / 0.0491202	0.9366	8.3000e-004	5.1000e-004	1.1097
General Office Building	3.41249 / 2.45493	6.3328	4.3900e-003	2.6700e-003	7.2395
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.47639 / 1.7815	4.5956	3.1800e-003	1.9400e-003	5.2536
Total		12.2982	8.7000e-003	5.3000e-003	14.0981

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.0658	0.4495	0.0000	20.3043
Unmitigated	22.6644	1.1239	0.0000	50.7607

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	11.84	2.4587	0.1219	0.0000	5.5068
Fast Food Restaurant with Drive Thru	31.1	6.4583	0.3203	0.0000	14.4645
General Office Building	22.32	4.6351	0.2298	0.0000	10.3810
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	43.88	9.1123	0.4519	0.0000	20.4085
Total		22.6644	1.1239	0.0000	50.7607

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	4.736	0.9835	0.0488	0.0000	2.2027
Fast Food Restaurant with Drive Thru	12.44	2.5833	0.1281	0.0000	5.7858
General Office Building	8.928	1.8540	0.0919	0.0000	4.1524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	17.552	3.6449	0.1807	0.0000	8.1634
Total		9.0658	0.4495	0.0000	20.3043

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Annual

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

Santa Maria Rancho Harvest Project - Operational Year 2024**Santa Barbara-North of Santa Ynez County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.00	1000sqft	0.55	24,000.00	0
Parking Lot	5.00	Acre	5.00	217,800.00	0
Fast Food Restaurant with Drive Thru	2.70	1000sqft	0.06	2,700.00	0
Convenience Market With Gas Pumps	3.94	1000sqft	0.09	3,940.00	0
Strip Mall	41.79	1000sqft	0.96	41,790.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.1	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	417.62	CH4 Intensity (lb/MW hr)	0.019	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

Project Characteristics - Includes RPS adjustment factors. Does not include participation in C3 Energy.

Land Use -

Construction Phase - Const schedule based on model defaults

Off-road Equipment - Const equipment based on model defaults

Trips and VMT - Const vehicle trips based on model defaults

Demolition - 34991 sf to be demolished based on information provided

Grading - Material balanced on site.

Architectural Coating - Arch coating based on model defaults

Vehicle Trips - Operational vehicle trips based on trip-gen from traffic analysis. Does not include internal capture or passby trips. Emissions associated with trip reductions calculated separately.

Energy Use -

Construction Off-road Equipment Mitigation - Includes 50%CE for watering veh travel ways, 61%CE for watering graded surfaces, 15 mph onsite speed limit. T3 equipment included for informational purposes.

Mobile Land Use Mitigation - includes onsite and connecting offsite improved pedestrian network per traffic analysis

Energy Mitigation - Compliance with current building code calculated separately

Water Mitigation - includes installation of low-flow fixtures and water-efficient irrigation per current building code

Waste Mitigation - based on current diversion rate of 60%

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	641.35	417.62
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	WD_TR	845.60	261.66
tblVehicleTrips	WD_TR	496.12	820.37
tblVehicleTrips	WD_TR	11.03	11.08
tblVehicleTrips	WD_TR	44.32	79.48

2.0 Emissions Summary

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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					
2022	3.2187	33.1182	21.5292	0.0456	18.1799	1.6133	19.7932	9.9608	1.4842	11.4450			4,498.797 2	1.1949	0.0000	4,526.826 6
2023	91.7491	18.3976	19.5896	0.0438	1.0105	0.7100	1.7205	0.2745	0.6681	0.9425			4,345.674 2	0.7160	0.0000	4,363.476 3
Maximum	91.7491	33.1182	21.5292	0.0456	18.1799	1.6133	19.7932	9.9608	1.4842	11.4450			4,498.797 2	1.1949	0.0000	4,526.826 6

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					
2022	1.1271	20.3472	25.6090	0.0456	7.1595	0.9469	8.1064	3.9031	0.9468	4.8499			4,498.797 2	1.1949	0.0000	4,526.826 6
2023	91.6169	18.2388	21.2194	0.0438	1.0105	0.9138	1.9243	0.2745	0.9132	1.1876			4,345.674 2	0.7160	0.0000	4,363.476 3
Maximum	91.6169	20.3472	25.6090	0.0456	7.1595	0.9469	8.1064	3.9031	0.9468	4.8499			4,498.797 2	1.1949	0.0000	4,526.826 6

	ROG	NOx	CO	SO2	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	2.34	25.10	-13.89	0.00	57.43	19.91	53.38	59.18	13.58	51.26	0.00	0.00	0.00	0.00	0.00	0.00

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Energy	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
Mobile	13.8433	39.3099	89.1023	0.2039	17.8976	0.1926	18.0901	4.7958	0.1795	4.9752			20,812.4138	1.2050		20,842.5377
Total	16.0040	39.5953	89.3499	0.2057	17.8976	0.2143	18.1119	4.7958	0.2012	4.9969			21,154.9082	1.2116	6.2800e-003	21,187.0683

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	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Energy	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
Mobile	13.8091	39.1007	88.2533	0.2006	17.5396	0.1900	17.7296	4.6999	0.1771	4.8769			20,472.1944	1.1924		20,502.0033
Total	15.9697	39.3862	88.5009	0.2023	17.5396	0.2117	17.7513	4.6999	0.1988	4.8986			20,814.6887	1.1990	6.2800e-003	20,846.5340

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	0.21	0.53	0.95	1.63	2.00	1.20	1.99	2.00	1.19	1.97	0.00	0.00	1.61	1.04	0.00	1.61

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/11/2022	5	10	
3	Grading	Grading	2/12/2022	3/11/2022	5	20	
4	Building Construction	Building Construction	3/12/2022	1/27/2023	5	230	
5	Paving	Paving	1/28/2023	2/24/2023	5	20	
6	Architectural Coating	Architectural Coating	2/25/2023	3/24/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 108,645; Non-Residential Outdoor: 36,215; Striped Parking Area: 13,068 (Architectural Coating – sqft)

OffRoad Equipment

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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	1	6.00	78	0.48

Trips and VMT

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	159.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	48.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					
Fugitive Dust					1.7718	0.0000	1.7718	0.2683	0.0000	0.2683			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553			3,746.7812	1.0524		3,773.0920
Total	2.6392	25.7194	20.5941	0.0388	1.7718	1.2427	3.0145	0.2683	1.1553	1.4236			3,746.7812	1.0524		3,773.0920

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

3.2 Demolition - 2022**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	0.0564	2.0053	0.6449	5.9800e-003	0.1381	7.3800e-003	0.1455	0.0378	7.0600e-003	0.0448			672.5858	0.0665		674.2480
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
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866
Total	0.0969	2.0343	0.9352	6.7800e-003	0.2328	7.9500e-003	0.2408	0.0629	7.5800e-003	0.0705			752.0160	0.0688		753.7346

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6910	0.0000	0.6910	0.1046	0.0000	0.1046			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627			3,746.7812	1.0524		3,773.0920
Total	0.9246	18.3130	24.6739	0.0388	0.6910	0.8627	1.5537	0.1046	0.8627	0.9674			3,746.7812	1.0524		3,773.0920

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

3.2 Demolition - 2022**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	0.0564	2.0053	0.6449	5.9800e-003	0.1381	7.3800e-003	0.1455	0.0378	7.0600e-003	0.0448			672.5858	0.0665		674.2480
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
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866
Total	0.0969	2.0343	0.9352	6.7800e-003	0.2328	7.9500e-003	0.2408	0.0629	7.5800e-003	0.0705			752.0160	0.0688		753.7346

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836			3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143			3,686.0619	1.1922		3,715.8655

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

3.3 Site Preparation - 2022**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
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
Worker	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			95.3163	2.7100e-003		95.3840
Total	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			95.3163	2.7100e-003		95.3840

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462			3,686.0619	1.1922		3,715.8655
Total	0.9312	19.0656	22.9600	0.0380	7.0458	0.9462	7.9920	3.8730	0.9462	4.8191			3,686.0619	1.1922		3,715.8655

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

3.3 Site Preparation - 2022**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
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
Worker	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			95.3163	2.7100e-003		95.3840
Total	0.0486	0.0347	0.3483	9.6000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			95.3163	2.7100e-003		95.3840

3.4 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656			2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	6.5523	0.9409	7.4932	3.3675	0.8656	4.2331			2,872.0464	0.9289		2,895.2684

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

3.4 Grading - 2022**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
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
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.7555	0.7555		0.7555	0.7555			2,872.0464	0.9289		2,895.2684
Total	0.7263	14.8397	18.9906	0.0297	2.5554	0.7555	3.3110	1.3133	0.7555	2.0689			2,872.0464	0.9289		2,895.2684

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3.4 Grading - 2022**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
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
Worker	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866
Total	0.0405	0.0289	0.2902	8.0000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			79.4303	2.2600e-003		79.4866

3.5 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322

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3.5 Building Construction - 2022**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
Vendor	0.1430	4.5841	1.4517	0.0112	0.2842	0.0125	0.2967	0.0818	0.0119	0.0937			1,225.9866	0.0924		1,228.2968
Worker	0.3103	0.2218	2.2251	6.1100e-003	0.7263	4.3500e-003	0.7306	0.1927	4.0100e-003	0.1967			608.9653	0.0173		609.3976
Total	0.4532	4.8059	3.6768	0.0173	1.0105	0.0168	1.0273	0.2745	0.0159	0.2904			1,834.9519	0.1097		1,837.6944

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,554.3336	0.6120		2,569.6322
Total	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,554.3336	0.6120		2,569.6322

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3.5 Building Construction - 2022**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
Vendor	0.1430	4.5841	1.4517	0.0112	0.2842	0.0125	0.2967	0.0818	0.0119	0.0937			1,225.9866	0.0924		1,228.2968
Worker	0.3103	0.2218	2.2251	6.1100e-003	0.7263	4.3500e-003	0.7306	0.1927	4.0100e-003	0.1967			608.9653	0.0173		609.3976
Total	0.4532	4.8059	3.6768	0.0173	1.0105	0.0168	1.0273	0.2745	0.0159	0.2904			1,834.9519	0.1097		1,837.6944

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061

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3.5 Building Construction - 2023**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
Vendor	0.1111	3.8141	1.3125	0.0110	0.2842	5.9800e-003	0.2902	0.0818	5.7200e-003	0.0875			1,204.2614	0.0888		1,206.4817
Worker	0.2896	0.1987	2.0332	5.8800e-003	0.7263	4.2400e-003	0.7305	0.1927	3.9000e-003	0.1966			586.2029	0.0154		586.5886
Total	0.4007	4.0128	3.3456	0.0169	1.0105	0.0102	1.0207	0.2745	9.6200e-003	0.2841			1,790.4643	0.1042		1,793.0703

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,555.2099	0.6079		2,570.4061
Total	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,555.2099	0.6079		2,570.4061

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3.5 Building Construction - 2023**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
Vendor	0.1111	3.8141	1.3125	0.0110	0.2842	5.9800e-003	0.2902	0.0818	5.7200e-003	0.0875			1,204.2614	0.0888		1,206.4817
Worker	0.2896	0.1987	2.0332	5.8800e-003	0.7263	4.2400e-003	0.7305	0.1927	3.9000e-003	0.1966			586.2029	0.0154		586.5886
Total	0.4007	4.0128	3.3456	0.0169	1.0105	0.0102	1.0207	0.2745	9.6200e-003	0.2841			1,790.4643	0.1042		1,793.0703

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6877	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336

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3.6 Paving - 2023**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
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
Worker	0.0378	0.0259	0.2652	7.7000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			76.4613	2.0100e-003		76.5116
Total	0.0378	0.0259	0.2652	7.7000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			76.4613	2.0100e-003		76.5116

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093			2,207.5841	0.7140		2,225.4336
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2159	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093			2,207.5841	0.7140		2,225.4336

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3.6 Paving - 2023**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
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
Worker	0.0378	0.0259	0.2652	7.7000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			76.4613	2.0100e-003		76.5116
Total	0.0378	0.0259	0.2652	7.7000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			76.4613	2.0100e-003		76.5116

3.7 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	91.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690
Total	91.6912	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690

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3.7 Architectural Coating - 2023**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
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
Worker	0.0579	0.0397	0.4066	1.1800e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			117.2406	3.0900e-003		117.3177
Total	0.0579	0.0397	0.4066	1.1800e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			117.2406	3.0900e-003		117.3177

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	91.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951			281.4481	0.0168		281.8690
Total	91.5590	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951			281.4481	0.0168		281.8690

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3.7 Architectural Coating - 2023**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
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
Worker	0.0579	0.0397	0.4066	1.1800e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			117.2406	3.0900e-003		117.3177
Total	0.0579	0.0397	0.4066	1.1800e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			117.2406	3.0900e-003		117.3177

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

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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					
Mitigated	13.8091	39.1007	88.2533	0.2006	17.5396	0.1900	17.7296	4.6999	0.1771	4.8769			20,472.1944	1.1924		20,502.0033
Unmitigated	13.8433	39.3099	89.1023	0.2039	17.8976	0.1926	18.0901	4.7958	0.1795	4.9752			20,812.4138	1.2050		20,842.5377

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	1,030.95	5,706.42	4657.40	934,758	916,063
Fast Food Restaurant with Drive Thru	2,215.00	1,949.48	1465.34	1,507,398	1,477,250
General Office Building	265.99	59.04	25.20	363,044	355,783
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,321.30	1,756.85	853.77	3,232,186	3,167,543
Total	6,833.25	9,471.79	7,001.71	6,037,386	5,916,639

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	6.60	5.50	6.40	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	6.60	5.50	6.40	2.20	78.80	19.00	29	21	50
General Office Building	6.60	5.50	6.40	33.00	48.00	19.00	77	19	4
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Fast Food Restaurant with Drive Thru	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
General Office Building	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
NaturalGas Unmitigated	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126

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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	lb/day										lb/day					
Convenience Market With Gas Pumps	25.583	2.8000e-004	2.5100e-003	2.1100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004			3.0098	6.0000e-005	6.0000e-005	3.0277
Fast Food Restaurant with Drive Thru	1537.74	0.0166	0.1508	0.1266	9.0000e-004		0.0115	0.0115		0.0115	0.0115			180.9109	3.4700e-003	3.3200e-003	181.9859
General Office Building	1076.38	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003			126.6334	2.4300e-003	2.3200e-003	127.3859
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
Strip Mall	271.349	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003			31.9234	6.1000e-004	5.9000e-004	32.1131
Total		0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5700e-003	6.2900e-003	344.5126

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	0.025583	2.8000e-004	2.5100e-003	2.1100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004			3.0098	6.0000e-005	6.0000e-005	3.0277
Fast Food Restaurant with Drive Thru	1.53774	0.0166	0.1508	0.1266	9.0000e-004		0.0115	0.0115		0.0115	0.0115			180.9109	3.4700e-003	3.3200e-003	181.9859
General Office Building	1.07638	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003			126.6334	2.4300e-003	2.3200e-003	127.3859
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
Strip Mall	0.271349	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003			31.9234	6.1000e-004	5.9000e-004	32.1131
Total		0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5700e-003	6.2900e-003	344.5126

6.0 Area Detail**6.1 Mitigation Measures Area**

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Unmitigated	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

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	0.5014					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Total	2.1293	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	0.5014					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Total	2.1293	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Summer

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

Santa Maria Rancho Harvest Project - Operational Year 2024

Santa Barbara-North of Santa Ynez County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.00	1000sqft	0.55	24,000.00	0
Parking Lot	5.00	Acre	5.00	217,800.00	0
Fast Food Restaurant with Drive Thru	2.70	1000sqft	0.06	2,700.00	0
Convenience Market With Gas Pumps	3.94	1000sqft	0.09	3,940.00	0
Strip Mall	41.79	1000sqft	0.96	41,790.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.1	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	417.62	CH4 Intensity (lb/MW hr)	0.019	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

Project Characteristics - Includes RPS adjustment factors. Does not include participation in C3 Energy.

Land Use -

Construction Phase - Const schedule based on model defaults

Off-road Equipment - Const equipment based on model defaults

Trips and VMT - Const vehicle trips based on model defaults

Demolition - 34991 sf to be demolished based on information provided

Grading - Material balanced on site.

Architectural Coating - Arch coating based on model defaults

Vehicle Trips - Operational vehicle trips based on trip-gen from traffic analysis. Does not include internal capture or passby trips. Emissions associated with trip reductions calculated separately.

Energy Use -

Construction Off-road Equipment Mitigation - Includes 50%CE for watering veh travel ways, 61%CE for watering graded surfaces, 15 mph onsite speed limit. T3 equipment included for informational purposes.

Mobile Land Use Mitigation - includes onsite and connecting offsite improved pedestrian network per traffic analysis

Energy Mitigation - Compliance with current building code calculated separately

Water Mitigation - includes installation of low-flow fixtures and water-efficient irrigation per current building code

Waste Mitigation - based on current diversion rate of 60%

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.019
tblProjectCharacteristics	CO2IntensityFactor	641.35	417.62
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblVehicleTrips	WD_TR	845.60	261.66
tblVehicleTrips	WD_TR	496.12	820.37
tblVehicleTrips	WD_TR	11.03	11.08
tblVehicleTrips	WD_TR	44.32	79.48

2.0 Emissions Summary

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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					
2022	3.2250	33.1232	21.5655	0.0455	18.1799	1.6133	19.7932	9.9608	1.4842	11.4450			4,487.6025	1.1949	0.0000	4,515.6643
2023	91.7568	18.4060	19.7736	0.0434	1.0105	0.7102	1.7208	0.2745	0.6683	0.9428			4,302.9587	0.7160	0.0000	4,320.8544
Maximum	91.7568	33.1232	21.5655	0.0455	18.1799	1.6133	19.7932	9.9608	1.4842	11.4450			4,487.6025	1.1949	0.0000	4,515.6643

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					
2022	1.1762	20.3606	25.6453	0.0455	7.1595	0.9469	8.1064	3.9031	0.9468	4.8499			4,487.6025	1.1949	0.0000	4,515.6643
2023	91.6246	18.2471	21.4033	0.0434	1.0105	0.9141	1.9246	0.2745	0.9135	1.1879			4,302.9587	0.7160	0.0000	4,320.8544
Maximum	91.6246	20.3606	25.6453	0.0455	7.1595	0.9469	8.1064	3.9031	0.9468	4.8499			4,487.6025	1.1949	0.0000	4,515.6643

	ROG	NOx	CO	SO2	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	2.30	25.08	-13.81	0.00	57.43	19.91	53.37	59.18	13.58	51.26	0.00	0.00	0.00	0.00	0.00	0.00

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Energy	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
Mobile	13.4410	40.0228	100.8734	0.1986	17.8976	0.1951	18.0927	4.7958	0.1819	4.9777			20,223.9035	1.2854		20,256.0374
Total	15.6016	40.3083	101.1210	0.2003	17.8976	0.2169	18.1144	4.7958	0.2036	4.9994			20,566.3978	1.2920	6.2800e-003	20,600.5680

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	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Energy	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
Mobile	13.4064	39.7994	100.0359	0.1953	17.5396	0.1926	17.7322	4.6999	0.1795	4.8793			19,889.7372	1.2729		19,921.5586
Total	15.5670	40.0848	100.2835	0.1970	17.5396	0.2143	17.7539	4.6999	0.2012	4.9011			20,232.2315	1.2795	6.2800e-003	20,266.0892

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	0.22	0.55	0.83	1.64	2.00	1.19	1.99	2.00	1.17	1.97	0.00	0.00	1.62	0.97	0.00	1.62

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/11/2022	5	10	
3	Grading	Grading	2/12/2022	3/11/2022	5	20	
4	Building Construction	Building Construction	3/12/2022	1/27/2023	5	230	
5	Paving	Paving	1/28/2023	2/24/2023	5	20	
6	Architectural Coating	Architectural Coating	2/25/2023	3/24/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 108,645; Non-Residential Outdoor: 36,215; Striped Parking Area: 13,068 (Architectural Coating – sqft)

OffRoad Equipment

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	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	1	6.00	78	0.48

Trips and VMT

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	159.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	48.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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					
Fugitive Dust					1.7718	0.0000	1.7718	0.2683	0.0000	0.2683			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553			3,746.7812	1.0524		3,773.0920
Total	2.6392	25.7194	20.5941	0.0388	1.7718	1.2427	3.0145	0.2683	1.1553	1.4236			3,746.7812	1.0524		3,773.0920

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

3.2 Demolition - 2022**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	0.0579	2.0145	0.6714	5.9000e-003	0.1381	7.5900e-003	0.1457	0.0378	7.2600e-003	0.0450			663.2271	0.0678		664.9217
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
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506
Total	0.1036	2.0476	0.9715	6.6800e-003	0.2328	8.1600e-003	0.2410	0.0629	7.7800e-003	0.0707			740.8213	0.0700		742.5723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6910	0.0000	0.6910	0.1046	0.0000	0.1046			0.0000			0.0000
Off-Road	0.9246	18.3130	24.6739	0.0388		0.8627	0.8627		0.8627	0.8627			3,746.7812	1.0524		3,773.0920
Total	0.9246	18.3130	24.6739	0.0388	0.6910	0.8627	1.5537	0.1046	0.8627	0.9674			3,746.7812	1.0524		3,773.0920

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

3.2 Demolition - 2022**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	0.0579	2.0145	0.6714	5.9000e-003	0.1381	7.5900e-003	0.1457	0.0378	7.2600e-003	0.0450			663.2271	0.0678		664.9217
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
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506
Total	0.1036	2.0476	0.9715	6.6800e-003	0.2328	8.1600e-003	0.2410	0.0629	7.7800e-003	0.0707			740.8213	0.0700		742.5723

3.3 Site Preparation - 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					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836			3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143			3,686.0619	1.1922		3,715.8655

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

3.3 Site Preparation - 2022**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
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
Worker	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			93.1131	2.7100e-003		93.1807
Total	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			93.1131	2.7100e-003		93.1807

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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.9312	19.0656	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462			3,686.0619	1.1922		3,715.8655
Total	0.9312	19.0656	22.9600	0.0380	7.0458	0.9462	7.9920	3.8730	0.9462	4.8191			3,686.0619	1.1922		3,715.8655

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

3.3 Site Preparation - 2022**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
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
Worker	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			93.1131	2.7100e-003		93.1807
Total	0.0549	0.0397	0.3600	9.4000e-004	0.1137	6.8000e-004	0.1144	0.0302	6.3000e-004	0.0308			93.1131	2.7100e-003		93.1807

3.4 Grading - 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					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656			2,872.0464	0.9289		2,895.2684
Total	1.9486	20.8551	15.2727	0.0297	6.5523	0.9409	7.4932	3.3675	0.8656	4.2331			2,872.0464	0.9289		2,895.2684

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3.4 Grading - 2022**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
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
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	0.7263	14.8397	18.9906	0.0297		0.7555	0.7555		0.7555	0.7555			2,872.0464	0.9289		2,895.2684
Total	0.7263	14.8397	18.9906	0.0297	2.5554	0.7555	3.3110	1.3133	0.7555	2.0689			2,872.0464	0.9289		2,895.2684

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez County, Winter

3.4 Grading - 2022**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
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
Worker	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506
Total	0.0458	0.0331	0.3000	7.8000e-004	0.0947	5.7000e-004	0.0953	0.0251	5.2000e-004	0.0257			77.5942	2.2500e-003		77.6506

3.5 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322

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3.5 Building Construction - 2022**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
Vendor	0.1515	4.5626	1.6001	0.0110	0.2842	0.0131	0.2974	0.0818	0.0125	0.0943			1,196.6520	0.0967		1,199.0702
Worker	0.3508	0.2537	2.3001	5.9800e-003	0.7263	4.3500e-003	0.7306	0.1927	4.0100e-003	0.1967			594.8889	0.0173		595.3210
Total	0.5023	4.8163	3.9003	0.0169	1.0105	0.0175	1.0280	0.2745	0.0166	0.2910			1,791.5410	0.1140		1,794.3912

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,554.3336	0.6120		2,569.6322
Total	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,554.3336	0.6120		2,569.6322

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3.5 Building Construction - 2022**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
Vendor	0.1515	4.5626	1.6001	0.0110	0.2842	0.0131	0.2974	0.0818	0.0125	0.0943			1,196.6520	0.0967		1,199.0702
Worker	0.3508	0.2537	2.3001	5.9800e-003	0.7263	4.3500e-003	0.7306	0.1927	4.0100e-003	0.1967			594.8889	0.0173		595.3210
Total	0.5023	4.8163	3.9003	0.0169	1.0105	0.0175	1.0280	0.2745	0.0166	0.2910			1,791.5410	0.1140		1,794.3912

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584			2,555.2099	0.6079		2,570.4061

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3.5 Building Construction - 2023**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
Vendor	0.1180	3.7939	1.4333	0.0107	0.2842	6.2700e-003	0.2905	0.0818	5.9900e-003	0.0878			1,175.0896	0.0926		1,177.4046
Worker	0.3281	0.2272	2.0963	5.7500e-003	0.7263	4.2400e-003	0.7305	0.1927	3.9000e-003	0.1966			572.6592	0.0154		573.0437
Total	0.4461	4.0211	3.5296	0.0165	1.0105	0.0105	1.0210	0.2745	9.8900e-003	0.2844			1,747.7488	0.1080		1,750.4483

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,555.2099	0.6079		2,570.4061
Total	0.6739	14.2261	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036			2,555.2099	0.6079		2,570.4061

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3.5 Building Construction - 2023**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
Vendor	0.1180	3.7939	1.4333	0.0107	0.2842	6.2700e-003	0.2905	0.0818	5.9900e-003	0.0878			1,175.0896	0.0926		1,177.4046
Worker	0.3281	0.2272	2.0963	5.7500e-003	0.7263	4.2400e-003	0.7305	0.1927	3.9000e-003	0.1966			572.6592	0.0154		573.0437
Total	0.4461	4.0211	3.5296	0.0165	1.0105	0.0105	1.0210	0.2745	9.8900e-003	0.2844			1,747.7488	0.1080		1,750.4483

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.6877	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694			2,207.5841	0.7140		2,225.4336

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3.6 Paving - 2023**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
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
Worker	0.0428	0.0296	0.2734	7.5000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			74.6947	2.0100e-003		74.7448
Total	0.0428	0.0296	0.2734	7.5000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			74.6947	2.0100e-003		74.7448

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093			2,207.5841	0.7140		2,225.4336
Paving	0.6550					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2159	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093			2,207.5841	0.7140		2,225.4336

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3.6 Paving - 2023**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
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
Worker	0.0428	0.0296	0.2734	7.5000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			74.6947	2.0100e-003		74.7448
Total	0.0428	0.0296	0.2734	7.5000e-004	0.0947	5.5000e-004	0.0953	0.0251	5.1000e-004	0.0256			74.6947	2.0100e-003		74.7448

3.7 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	91.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690
Total	91.6912	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708			281.4481	0.0168		281.8690

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3.7 Architectural Coating - 2023**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
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
Worker	0.0656	0.0454	0.4193	1.1500e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			114.5319	3.0800e-003		114.6087
Total	0.0656	0.0454	0.4193	1.1500e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			114.5319	3.0800e-003		114.6087

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	91.4995					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951			281.4481	0.0168		281.8690
Total	91.5590	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951			281.4481	0.0168		281.8690

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3.7 Architectural Coating - 2023**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
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
Worker	0.0656	0.0454	0.4193	1.1500e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			114.5319	3.0800e-003		114.6087
Total	0.0656	0.0454	0.4193	1.1500e-003	0.1453	8.5000e-004	0.1461	0.0385	7.8000e-004	0.0393			114.5319	3.0800e-003		114.6087

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	13.4064	39.7994	100.0359	0.1953	17.5396	0.1926	17.7322	4.6999	0.1795	4.8793			19,889.7372	1.2729		19,921.5586
Unmitigated	13.4410	40.0228	100.8734	0.1986	17.8976	0.1951	18.0927	4.7958	0.1819	4.9777			20,223.9035	1.2854		20,256.0374

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	1,030.95	5,706.42	4657.40	934,758	916,063
Fast Food Restaurant with Drive Thru	2,215.00	1,949.48	1465.34	1,507,398	1,477,250
General Office Building	265.99	59.04	25.20	363,044	355,783
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,321.30	1,756.85	853.77	3,232,186	3,167,543
Total	6,833.25	9,471.79	7,001.71	6,037,386	5,916,639

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	6.60	5.50	6.40	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	6.60	5.50	6.40	2.20	78.80	19.00	29	21	50
General Office Building	6.60	5.50	6.40	33.00	48.00	19.00	77	19	4
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Fast Food Restaurant with Drive Thru	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
General Office Building	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Parking Lot	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873
Strip Mall	0.572071	0.027190	0.206810	0.117824	0.018361	0.005136	0.017629	0.020081	0.002790	0.002084	0.006580	0.002569	0.000873

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126
NaturalGas Unmitigated	0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5600e-003	6.2800e-003	344.5126

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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	lb/day										lb/day					
Convenience Market With Gas Pumps	25.583	2.8000e-004	2.5100e-003	2.1100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004			3.0098	6.0000e-005	6.0000e-005	3.0277
Fast Food Restaurant with Drive Thru	1537.74	0.0166	0.1508	0.1266	9.0000e-004		0.0115	0.0115		0.0115	0.0115			180.9109	3.4700e-003	3.3200e-003	181.9859
General Office Building	1076.38	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003			126.6334	2.4300e-003	2.3200e-003	127.3859
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
Strip Mall	271.349	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003			31.9234	6.1000e-004	5.9000e-004	32.1131
Total		0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5700e-003	6.2900e-003	344.5126

Santa Maria Rancho Harvest Project - Operational Year 2024 - Santa Barbara-North of Santa Ynez 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	0.025583	2.8000e-004	2.5100e-003	2.1100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004			3.0098	6.0000e-005	6.0000e-005	3.0277
Fast Food Restaurant with Drive Thru	1.53774	0.0166	0.1508	0.1266	9.0000e-004		0.0115	0.0115		0.0115	0.0115			180.9109	3.4700e-003	3.3200e-003	181.9859
General Office Building	1.07638	0.0116	0.1055	0.0886	6.3000e-004		8.0200e-003	8.0200e-003		8.0200e-003	8.0200e-003			126.6334	2.4300e-003	2.3200e-003	127.3859
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
Strip Mall	0.271349	2.9300e-003	0.0266	0.0224	1.6000e-004		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003			31.9234	6.1000e-004	5.9000e-004	32.1131
Total		0.0314	0.2854	0.2397	1.7100e-003		0.0217	0.0217		0.0217	0.0217			342.4774	6.5700e-003	6.2900e-003	344.5126

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	lb/day										lb/day					
Mitigated	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Unmitigated	2.1292	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

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	0.5014					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Total	2.1293	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

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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	lb/day										lb/day					
Architectural Coating	0.5014					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.3000e-004	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181
Total	2.1293	7.0000e-005	7.8900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.0170	4.0000e-005		0.0181

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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Santa Maria Rancho Harvest Project - Operational Year 2030
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1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.00	1000sqft	0.55	24,000.00	0
Strip Mall	41.79	1000sqft	0.96	41,790.00	0
Fast Food Restaurant with Drive Thru	2.70	1000sqft	0.06	2,700.00	0
Convenience Market With Gas Pumps	3.94	1000sqft	0.09	3,940.00	0
Parking Lot	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.1	Precipitation Freq (Days)	37
Climate Zone	4			Operational Year	2030
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	295.3	CH4 Intensity (lb/MW hr)	0.013	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Includes RPS adjustment factors. Does not include participation in C3 Energy. Refer to initial operational year model run (yr 2023) for construction emission calculations.

Land Use - based on information provided

Construction Phase - Const schedule based on model defaults

Off-road Equipment - Const equipment based on model defaults

Grading - Material balanced on site.

Demolition - 34991 sf to be demolished based on information provided

Trips and VMT - Const vehicle trips based on model defaults

Architectural Coating - Arch coating based on model defaults

Vehicle Trips - Operational vehicle trips based on trip-gen from traffic analysis. Does not include internal capture or passby trips. Emissions associated with trip reductions calculated separately.

Energy Use - Energy use based on model defaults

Water And Wastewater - Water and waste based on model defaults

Construction Off-road Equipment Mitigation - Includes 50%CE for watering veh travel ways, 61%CE for watering graded surfaces, 15mph onsite speed limit. T3 equipment included for informational purposes.

Mobile Land Use Mitigation - Includes improved pedestrian network onsite and connecting offsite

Water Mitigation - Includes installation of low-flow fixtures and water-efficient irrigation per current building code

Waste Mitigation - Includes 60% diversion rate, per current rate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.013
tblProjectCharacteristics	CO2IntensityFactor	641.35	295.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	WD_TR	845.60	261.66
tblVehicleTrips	WD_TR	496.12	820.37
tblVehicleTrips	WD_TR	11.03	11.08
tblVehicleTrips	WD_TR	44.32	79.48

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					
2022	0.3033	3.2294	2.7219	6.8100e-003	0.2916	0.1183	0.4099	0.1203	0.1108	0.2311			626.2591	0.1056	0.0000	628.8988
2023	0.9546	0.3002	0.3674	7.1000e-004	0.0122	0.0129	0.0252	3.3200e-003	0.0121	0.0154			63.4954	0.0132	0.0000	63.8242
Maximum	0.9546	3.2294	2.7219	6.8100e-003	0.2916	0.1183	0.4099	0.1203	0.1108	0.2311			626.2591	0.1056	0.0000	628.8988

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					
2022	0.1543	2.8792	2.9748	6.8100e-003	0.1966	0.1192	0.3158	0.0695	0.1191	0.1885			626.2587	0.1056	0.0000	628.8984
2023	0.9396	0.3102	0.4110	7.1000e-004	0.0122	0.0162	0.0284	3.3200e-003	0.0162	0.0195			63.4954	0.0132	0.0000	63.8241
Maximum	0.9396	2.8792	2.9748	6.8100e-003	0.1966	0.1192	0.3158	0.0695	0.1191	0.1885			626.2587	0.1056	0.0000	628.8984

	ROG	NOx	CO	SO2	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	13.04	9.64	-9.60	0.00	31.29	-3.22	20.88	41.11	-10.03	15.62	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	1.3076	1.0455
2	4-1-2022	6-30-2022	0.7339	0.6552
3	7-1-2022	9-30-2022	0.7419	0.6624
4	10-1-2022	12-31-2022	0.7439	0.6643
5	1-1-2023	3-31-2023	1.2475	1.2429
		Highest	1.3076	1.2429

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Energy	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			201.5430	7.4600e-003	2.5100e-003	202.4778
Mobile	1.0857	4.0547	7.7853	0.0218	2.2843	0.0171	2.3014	0.6125	0.0159	0.6284			2,031.4226	0.1176	0.0000	2,034.3618
Waste						0.0000	0.0000		0.0000	0.0000			22.6644	1.1239	0.0000	50.7607
Water						0.0000	0.0000		0.0000	0.0000			11.3618	0.0107	6.6000e-003	13.5968
Total	1.4799	4.1068	7.8297	0.0221	2.2843	0.0211	2.3054	0.6125	0.0199	0.6324			2,266.9931	1.2596	9.1100e-003	2,301.1987

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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	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Energy	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			201.5430	7.4600e-003	2.5100e-003	202.4778
Mobile	1.0824	4.0357	7.7090	0.0214	2.2386	0.0169	2.2555	0.6003	0.0157	0.6160			1,997.9312	0.1163	0.0000	2,000.8395
Waste						0.0000	0.0000		0.0000	0.0000			9.0658	0.4495	0.0000	20.3043
Water						0.0000	0.0000		0.0000	0.0000			9.3985	8.5600e-003	5.2900e-003	11.1878
Total	1.4767	4.0878	7.7535	0.0217	2.2386	0.0209	2.2595	0.6003	0.0197	0.6199			2,217.9398	0.5819	7.8000e-003	2,234.8109

	ROG	NOx	CO	SO2	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	0.22	0.46	0.97	1.63	2.00	1.04	1.99	2.00	1.06	1.97	0.00	0.00	2.16	53.80	14.38	2.88

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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Site Preparation	Site Preparation	1/29/2022	2/11/2022	5	10	
3	Grading	Grading	2/12/2022	3/11/2022	5	20	
4	Building Construction	Building Construction	3/12/2022	1/27/2023	5	230	
5	Paving	Paving	1/28/2023	2/24/2023	5	20	
6	Architectural Coating	Architectural Coating	2/25/2023	3/24/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 108,645; Non-Residential Outdoor: 36,215; Striped Parking Area: 13,068 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	3,460.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	115.00	48.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 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	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116			33.9902	9.5500e-003	0.0000	34.2289
Total	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116			33.9902	9.5500e-003	0.0000	34.2289

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3.2 Demolition - 2022**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	0.0124	0.4454	0.1428	1.2900e-003	0.0295	1.6300e-003	0.0311	8.0800e-003	1.5500e-003	9.6300e-003			132.0009	0.0132	0.0000	132.3318
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	0.0128	0.4457	0.1457	1.3000e-003	0.0304	1.6400e-003	0.0320	8.3300e-003	1.5600e-003	9.8800e-003			132.7058	0.0133	0.0000	133.0372

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	9.2500e-003	0.1831	0.2467	3.9000e-004		8.6300e-003	8.6300e-003		8.6300e-003	8.6300e-003			33.9902	9.5500e-003	0.0000	34.2289
Total	9.2500e-003	0.1831	0.2467	3.9000e-004		8.6300e-003	8.6300e-003		8.6300e-003	8.6300e-003			33.9902	9.5500e-003	0.0000	34.2289

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3.2 Demolition - 2022**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	0.0124	0.4454	0.1428	1.2900e-003	0.0295	1.6300e-003	0.0311	8.0800e-003	1.5500e-003	9.6300e-003			132.0009	0.0132	0.0000	132.3318
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	0.0128	0.4457	0.1457	1.3000e-003	0.0304	1.6400e-003	0.0320	8.3300e-003	1.5600e-003	9.8800e-003			132.7058	0.0133	0.0000	133.0372

3.3 Site Preparation - 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					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	0.0159	0.1654	0.0985	1.9000e-004	0.0903	8.0600e-003	0.0984	0.0497	7.4200e-003	0.0571			16.7197	5.4100e-003	0.0000	16.8549

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3.3 Site Preparation - 2022**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
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	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232
Total	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194			0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0953	0.1148	1.9000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003			16.7197	5.4100e-003	0.0000	16.8549
Total	4.6600e-003	0.0953	0.1148	1.9000e-004	0.0352	4.7300e-003	0.0400	0.0194	4.7300e-003	0.0241			16.7197	5.4100e-003	0.0000	16.8549

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3.3 Site Preparation - 2022**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
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	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232
Total	2.5000e-004	1.9000e-004	1.7600e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004			0.4229	1.0000e-005	0.0000	0.4232

3.4 Grading - 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					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003			26.0548	8.4300e-003	0.0000	26.2654
Total	0.0195	0.2086	0.1527	3.0000e-004	0.0655	9.4100e-003	0.0749	0.0337	8.6600e-003	0.0423			26.0548	8.4300e-003	0.0000	26.2654

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3.4 Grading - 2022**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
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054

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					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131			0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.1484	0.1899	3.0000e-004		7.5600e-003	7.5600e-003		7.5600e-003	7.5600e-003			26.0547	8.4300e-003	0.0000	26.2654
Total	7.2600e-003	0.1484	0.1899	3.0000e-004	0.0256	7.5600e-003	0.0331	0.0131	7.5600e-003	0.0207			26.0547	8.4300e-003	0.0000	26.2654

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3.4 Grading - 2022**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
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	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054
Total	4.2000e-004	3.2000e-004	2.9300e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.7049	2.0000e-005	0.0000	0.7054

3.5 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	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799			243.3115	0.0583	0.0000	244.7688
Total	0.1792	1.6396	1.7182	2.8300e-003		0.0850	0.0850		0.0799	0.0799			243.3115	0.0583	0.0000	244.7688

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3.5 Building Construction - 2022**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
Vendor	0.0154	0.4863	0.1604	1.1700e-003	0.0293	1.3400e-003	0.0306	8.4500e-003	1.2800e-003	9.7300e-003			115.6055	8.9900e-003	0.0000	115.8302
Worker	0.0335	0.0261	0.2358	6.3000e-004	0.0746	4.6000e-004	0.0750	0.0198	4.2000e-004	0.0202			56.7438	1.6400e-003	0.0000	56.7847
Total	0.0489	0.5124	0.3962	1.8000e-003	0.1039	1.8000e-003	0.1057	0.0283	1.7000e-003	0.0300			172.3493	0.0106	0.0000	172.6149

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	0.0708	1.4937	1.8767	2.8300e-003		0.0949	0.0949		0.0949	0.0949			243.3112	0.0583	0.0000	244.7685
Total	0.0708	1.4937	1.8767	2.8300e-003		0.0949	0.0949		0.0949	0.0949			243.3112	0.0583	0.0000	244.7685

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3.5 Building Construction - 2022**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
Vendor	0.0154	0.4863	0.1604	1.1700e-003	0.0293	1.3400e-003	0.0306	8.4500e-003	1.2800e-003	9.7300e-003			115.6055	8.9900e-003	0.0000	115.8302
Worker	0.0335	0.0261	0.2358	6.3000e-004	0.0746	4.6000e-004	0.0750	0.0198	4.2000e-004	0.0202			56.7438	1.6400e-003	0.0000	56.7847
Total	0.0489	0.5124	0.3962	1.8000e-003	0.1039	1.8000e-003	0.1057	0.0283	1.7000e-003	0.0300			172.3493	0.0106	0.0000	172.6149

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.1439	0.1624	2.7000e-004		7.0000e-003	7.0000e-003		6.5800e-003	6.5800e-003			23.1805	5.5100e-003	0.0000	23.3183
Total	0.0157	0.1439	0.1624	2.7000e-004		7.0000e-003	7.0000e-003		6.5800e-003	6.5800e-003			23.1805	5.5100e-003	0.0000	23.3183

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3.5 Building Construction - 2023**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
Vendor	1.1400e-003	0.0385	0.0138	1.1000e-004	2.7900e-003	6.0000e-005	2.8500e-003	8.1000e-004	6.0000e-005	8.6000e-004			10.8136	8.2000e-004	0.0000	10.8341
Worker	2.9800e-003	2.2200e-003	0.0205	6.0000e-005	7.1000e-003	4.0000e-005	7.1500e-003	1.8900e-003	4.0000e-005	1.9300e-003			5.2022	1.4000e-004	0.0000	5.2057
Total	4.1200e-003	0.0407	0.0343	1.7000e-004	9.8900e-003	1.0000e-004	0.0100	2.7000e-003	1.0000e-004	2.7900e-003			16.0158	9.6000e-004	0.0000	16.0398

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	6.7400e-003	0.1423	0.1787	2.7000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003			23.1805	5.5100e-003	0.0000	23.3183
Total	6.7400e-003	0.1423	0.1787	2.7000e-004		9.0400e-003	9.0400e-003		9.0400e-003	9.0400e-003			23.1805	5.5100e-003	0.0000	23.3183

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3.5 Building Construction - 2023**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
Vendor	1.1400e-003	0.0385	0.0138	1.1000e-004	2.7900e-003	6.0000e-005	2.8500e-003	8.1000e-004	6.0000e-005	8.6000e-004			10.8136	8.2000e-004	0.0000	10.8341
Worker	2.9800e-003	2.2200e-003	0.0205	6.0000e-005	7.1000e-003	4.0000e-005	7.1500e-003	1.8900e-003	4.0000e-005	1.9300e-003			5.2022	1.4000e-004	0.0000	5.2057
Total	4.1200e-003	0.0407	0.0343	1.7000e-004	9.8900e-003	1.0000e-004	0.0100	2.7000e-003	1.0000e-004	2.7900e-003			16.0158	9.6000e-004	0.0000	16.0398

3.6 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0269	6.4800e-003	0.0000	20.1888
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.0169	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003			20.0269	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023**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
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	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790
Total	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003			20.0268	6.4800e-003	0.0000	20.1888
Paving	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	0.0122	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003			20.0268	6.4800e-003	0.0000	20.1888

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3.6 Paving - 2023**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
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	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790
Total	3.9000e-004	2.9000e-004	2.6700e-003	1.0000e-005	9.3000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004			0.6786	2.0000e-005	0.0000	0.6790

3.7 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9150					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	0.9169	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004			2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023**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
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	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411
Total	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9150					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004			2.5533	1.5000e-004	0.0000	2.5571
Total	0.9156	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004			2.5533	1.5000e-004	0.0000	2.5571

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3.7 Architectural Coating - 2023**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
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	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411
Total	6.0000e-004	4.4000e-004	4.1000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004			1.0405	3.0000e-005	0.0000	1.0411

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

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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	1.0824	4.0357	7.7090	0.0214	2.2386	0.0169	2.2555	0.6003	0.0157	0.6160			1,997.9312	0.1163	0.0000	2,000.8395
Unmitigated	1.0857	4.0547	7.7853	0.0218	2.2843	0.0171	2.3014	0.6125	0.0159	0.6284			2,031.4226	0.1176	0.0000	2,034.3618

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	1,030.94	5,706.42	4657.40	934,755	916,060
Fast Food Restaurant with Drive Thru	2,215.00	1,949.48	1465.34	1,507,398	1,477,250
General Office Building	265.99	59.04	25.20	363,044	355,783
Parking Lot	0.00	0.00	0.00		
Strip Mall	3,321.30	1,756.85	853.77	3,232,186	3,167,543
Total	6,833.23	9,471.79	7,001.71	6,037,383	5,916,635

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	6.60	5.50	6.40	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	6.60	5.50	6.40	2.20	78.80	19.00	29	21	50
General Office Building	6.60	5.50	6.40	33.00	48.00	19.00	77	19	4
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0
Strip Mall	6.60	5.50	6.40	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market With Gas Pumps	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Fast Food Restaurant with Drive Thru	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
General Office Building	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Parking Lot	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641
Strip Mall	0.586995	0.024930	0.209264	0.108263	0.013258	0.004355	0.018072	0.021482	0.002798	0.001725	0.005977	0.002241	0.000641

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			144.8420	6.3800e-003	1.4700e-003	145.4399
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			144.8420	6.3800e-003	1.4700e-003	145.4399
NaturalGas Mitigated	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			56.7010	1.0900e-003	1.0400e-003	57.0379
NaturalGas Unmitigated	5.7300e-003	0.0521	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003			56.7010	1.0900e-003	1.0400e-003	57.0379

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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	9337.8	5.0000e-005	4.6000e-004	3.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.4983	1.0000e-005	1.0000e-005	0.5013
Fast Food Restaurant with Drive Thru	561276	3.0300e-003	0.0275	0.0231	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003			29.9518	5.7000e-004	5.5000e-004	30.1298
General Office Building	392880	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003			20.9656	4.0000e-004	3.8000e-004	21.0902
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
Strip Mall	99042.3	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004			5.2853	1.0000e-004	1.0000e-004	5.3167
Total		5.7300e-003	0.0521	0.0438	3.2000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003			56.7010	1.0800e-003	1.0400e-003	57.0379

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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	9337.8	5.0000e-005	4.6000e-004	3.8000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005			0.4983	1.0000e-005	1.0000e-005	0.5013
Fast Food Restaurant with Drive Thru	561276	3.0300e-003	0.0275	0.0231	1.7000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003			29.9518	5.7000e-004	5.5000e-004	30.1298
General Office Building	392880	2.1200e-003	0.0193	0.0162	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003			20.9656	4.0000e-004	3.8000e-004	21.0902
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
Strip Mall	99042.3	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004			5.2853	1.0000e-004	1.0000e-004	5.3167
Total		5.7300e-003	0.0521	0.0438	3.2000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003			56.7010	1.0800e-003	1.0400e-003	57.0379

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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	42118.6	5.6416	2.5000e-004	6.0000e-005	5.6649
Fast Food Restaurant with Drive Thru	88344	11.8333	5.2000e-004	1.2000e-004	11.8822
General Office Building	427920	57.3181	2.5200e-003	5.8000e-004	57.5547
Parking Lot	76230	10.2107	4.5000e-004	1.0000e-004	10.2528
Strip Mall	446735	59.8383	2.6300e-003	6.1000e-004	60.0853
Total		144.8420	6.3700e-003	1.4700e-003	145.4399

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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	42118.6	5.6416	2.5000e-004	6.0000e-005	5.6649
Fast Food Restaurant with Drive Thru	88344	11.8333	5.2000e-004	1.2000e-004	11.8822
General Office Building	427920	57.3181	2.5200e-003	5.8000e-004	57.5547
Parking Lot	76230	10.2107	4.5000e-004	1.0000e-004	10.2528
Strip Mall	446735	59.8383	2.6300e-003	6.1000e-004	60.0853
Total		144.8420	6.3700e-003	1.4700e-003	145.4399

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	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Unmitigated	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-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	0.0915					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Total	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-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	0.0915					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2970					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003
Total	0.3885	1.0000e-005	7.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000			1.3800e-003	0.0000	0.0000	1.4700e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.3985	8.5600e-003	5.2900e-003	11.1878
Unmitigated	11.3618	0.0107	6.6000e-003	13.5968

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	0.291846 / 0.178873	0.3986	3.7000e-004	2.3000e-004	0.4757
Fast Food Restaurant with Drive Thru	0.819541 / 0.0523111	0.9085	1.0300e-003	6.4000e-004	1.1239
General Office Building	4.26561 / 2.61441	5.8265	5.3800e-003	3.3300e-003	6.9522
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	3.09549 / 1.89724	4.2282	3.9100e-003	2.4100e-003	5.0451
Total		11.3618	0.0107	6.6100e-003	13.5968

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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	0.233477 / 0.167962	0.3306	3.0000e-004	1.8000e-004	0.3922
Fast Food Restaurant with Drive Thru	0.655633 / 0.0491202	0.7302	8.2000e-004	5.1000e-004	0.9025
General Office Building	3.41249 / 2.45493	4.8316	4.3200e-003	2.6600e-003	5.7328
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	2.47639 / 1.7815	3.5062	3.1300e-003	1.9300e-003	4.1602
Total		9.3985	8.5700e-003	5.2800e-003	11.1878

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.0658	0.4495	0.0000	20.3043
Unmitigated	22.6644	1.1239	0.0000	50.7607

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	11.84	2.4587	0.1219	0.0000	5.5068
Fast Food Restaurant with Drive Thru	31.1	6.4583	0.3203	0.0000	14.4645
General Office Building	22.32	4.6351	0.2298	0.0000	10.3810
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	43.88	9.1123	0.4519	0.0000	20.4085
Total		22.6644	1.1239	0.0000	50.7607

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market With Gas Pumps	4.736	0.9835	0.0488	0.0000	2.2027
Fast Food Restaurant with Drive Thru	12.44	2.5833	0.1281	0.0000	5.7858
General Office Building	8.928	1.8540	0.0919	0.0000	4.1524
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	17.552	3.6449	0.1807	0.0000	8.1634
Total		9.0658	0.4495	0.0000	20.3043

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation
