

Global Climate Change Evaluation

for the

Otay Ranch Resort Village Specific Plan ER-04-19-005, KIVA 3810-04-002

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List of Acronyms

APCD	Air Pollution Control District
AB	Assembly Bill
AB 32	Assembly Bill 32, Global Warming Solutions Act of 2006
AMSL	Above Mean Sea Level
ARB	Air Resources Board
ASTM	American Society of Testing and Materials
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAT	Climate Action Team
CCAP	Center for Clean Air Policy
CCAR	California Climate Action Registry
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DWR	Department of Water Resources
EDCs	Environmental Design Considerations
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
EV	Electric Vehicles
GCC	Global Climate Change
GHG	Greenhouse Gas
GGEP	Greenhouse Gas Emissions Policy
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
HOA	Homeowners' Association
IPCC	Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LEED	Leadership in Energy and Environmental Design
MT	Metric Tons
MMT	Million Metric Tons
MW	Megawatts
N ₂ O	Nitrous Oxide
NF ₃	Nitrogen Trifluoride
NO _x	Oxides of Nitrogen
OPR	State Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particulate Matter

ROG	Reactive Organic Gas
RMP	Resource Management Plan
RPS	Renewable Portfolio Standards
S-3-05	Executive Order S-3-05
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDCGHGI	San Diego County Greenhouse Gas Inventory
SDG&E	San Diego Gas & Electric
SF ₆	Sulfur Hexafluoride
SRI	Solar Reflective Index
TDM	Transportation Demand Management
THC	Total Hydrocarbon
UNFCCC	United Nations Framework Convention on Climate Change
USBGC	U.S. Green Building Council
VMT	Vehicle Miles Traveled

Executive Summary

This report presents an assessment of potential global climate change impacts associated with the Otay Ranch Resort Village (proposed Project). The Project proposes to develop a resort; 1,881 single-family residences; 57 multi-family residences; a school; park and recreation amenities; a fire station; and, 40,000 square feet of retail uses. Under the optional development scenario, 20,000 square feet of retail uses and 57 multi-family residences would be replaced by 57 single-family residences.

Specifically, the report discusses the scientific, regulatory and policy developments surrounding global climate change; provides a quantitative inventory of the greenhouse gas (GHG) emissions that would result from Project implementation (construction and operation); evaluates the significance of the Project's GHG emissions; and, identifies feasible mitigation to ensure that the Project does not significantly impact the environment.

Table ES-1 presents the environmental design considerations (EDCs) that are part of the proposed Project and will serve to reduce GHG emissions. Table ES-2 presents regulatory compliance measures applicable to the proposed Project that will serve to reduce the Project's GHG emissions. And, Table ES-3 presents mitigation measures that are recommended for adoption to further reduce GHG emissions.

GHG emissions were calculated for the Project's estimated build-out year of 2030, accounting for the environmental design considerations, regulatory compliance measures and mitigation measures listed in Tables ES-1, ES-2 and ES-3. Tables ES-4a and ES-4b present the 2030 build-out year emissions for the proposed Project and Tables ES-5a and ES-5b present the 2030 build-out year emissions for the proposed Project's optional development scenario. Tables ES-4a and ES-5a present the emissions with incorporation of EDCs and regulatory compliance measures that result in quantifiable emissions reduction benefits; Tables ES-4b and ES-5b show the added emissions reduction benefits of the mitigation measures recommended for the proposed Project.

Without mitigation, the proposed Project's GHG emissions would result in a potentially significant impact due to the Project's incremental contribution to the cumulative issue of global climate change. As illustrated by the Project-specific emissions inventory data presented in this report, the Project would result in an increase in GHG emissions, as compared to the existing environmental setting. However, within implementation of the eight (8) mitigation measures recommended in this report, the proposed Project's GHG emissions would be reduced to net zero, thereby supporting a determination that the Project would not change the existing environmental setting. Because the proposed Project, with mitigation, would result in no net increase in GHG emissions, the proposed Project would not result in a significant impact to global climate change and would not make a cumulatively considerable contribution to global climate change.

Accordingly, the proposed Project's GHG direct and cumulative impacts would be ***less than significant*** with implementation of the recommended mitigation.

Table ES-1
Proposed Environmental Design Considerations to Reduce GHG Emissions

Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
Building Design			
Natural Gas Fireplaces	The Project's residences would only utilize natural gas fireplaces; no wood burning fireplaces would be installed.	88% reduction in area source emissions.	CalEEMod Model
Solid Waste			
Curbside Recycling	The Project's residences and non-residential development would be served by curbside recycling in furtherance of the California Integrated Waste Management Act, the statewide policy goals of AB 341, and the County's General Plan and Strategic Plan to Reduce Waste. Additionally, the Project would comply with the reduction, re-use, and recycling requirements contained in the County's Recycling and Construction and Demolition Debris Recycling Ordinances.	None taken; however, the strategy would be consistent with state and local diversion rate goals.	Not Applicable
Water Conservation			
Water Conservation Plan	The Project includes a Water Conservation Plan that will reduce outdoor water usage by 30%, when compared to existing outdoor water usage for typical residential homes. The Water Conservation Plan will require compliance with the County's Water Conservation in Landscaping Ordinance (Model Landscape Ordinance) for all outdoor landscapes in the Project, including common areas, public spaces, parkways, medians, parking lots, parks, and all builder or homeowner installed private front and backyard landscaping. As such, the Water Conservation Plan goes beyond the County's Ordinance by applying to all landscaping installed in the Project. Consistent with the County's Model Landscape Ordinance, the Water Conservation Plan requires the use of a water allocation-based approach to landscape zones, use of drought-tolerant, low-water usage native plants, high-efficiency weather- or evapotranspiration-based irrigation controllers, soil moisture sensors, and drip emitters, soaker hose (e.g., netafim), or equivalent high-efficiency drip irrigation, and limitations on the use of natural turf in residential development to no more than 30% of the outdoor open space.	30% reduction in Project outdoor water use.	Water Conservation Plan

Table ES-2 Regulatory Compliance Measures to Reduce GHG Emissions			
Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
Energy Efficiency			
Renewable Portfolio Standard	Implementation of the 60% Renewable Portfolio Standard (RPS) by 2030.	The CalEEMod Model's default energy intensity factor is based on 2009 Power Utility Protocol data for San Diego Gas & Electric (SDG&E). SDG&E procured 10.2% of its electricity from renewable resources in 2009 (SDG&E 2012); therefore, the energy intensity has been reduced by an additional 49.8% to account for implementation of the 60% RPS.	Senate Bill (SB) 100
Water Conservation			
Low-Flow Fixtures	Indoor residential plumbing products would comply with the mandatory provisions of the 2016 CALGreen Code (Part 11 of Title 24), including future applicable updates to CALGreen.	Accounted for in the CalEEMod Model through selection of low-flow fixtures option.	CalEEMod Model
Building and Site Design			
2016 Building Energy Efficiency Standards (Part 6 of Title 24); 2016 CALGreen Code (Part 11 of Title 24)	Residential and non-residential buildings would be designed to comply with the standards promulgated in the 2016 Building Energy Efficiency Standards, as well as the 2016 CALGreen Code, including future applicable updates to these codes.	Energy use in single-family residences would be reduced as shown in ConSol's energy study.	Appendix C (ConSol); CEC 2015

Table ES-2
Regulatory Compliance Measures to Reduce GHG Emissions

Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
Transportation-Related Sources (Vehicles)			
Advanced Clean Cars	This regulation would reduce emissions from passenger vehicles by 19.5% by 2030, when compared the emissions reductions achieved by the Pavley standards.	Accounted for in EMFAC2014, which forms the platform for the CalEEMod Model's mobile source emissions estimates.	CalEEMod Model
Low Carbon Fuel Standard	This regulation is anticipated to achieve a 10% reduction in the carbon intensity of transportation fuels by 2020 and a 20% reduction by 2030.	No reduction assumed. Although the LCFS would reduce emissions from transportation fuels, EMFAC2014 – which forms the platform for the CalEEMod Model's mobile source emissions estimates – does not account for it.	CalEEMod Model
EV Plug-Ins	Dedicated circuits for electric vehicle plug-in facilities/stations would be installed in all residential garages and in non-residential areas per the 2016 California Green Building Standards Code (see Sections 4.106.4 and 5.106.5.3).	No reduction assumed.	N/A
Solid Waste			
Solid Waste Diversion	Project-wide curbside recycling for single-family, multi-family, resort, school, commercial, and retail establishments would be required in accordance with the California Integrated Waste Management Act (AB 939), and contribute towards achievement of AB 341's statewide 75% diversion policy.	75% diversion rate resulting in associated GHG emissions reductions. The calculations of emission reductions are based on CalRecycle data. Calculations are	County of San Diego 2016; CalRecycle 2016

Table ES-2 Regulatory Compliance Measures to Reduce GHG Emissions			
Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
		provided in Appendix D.	

Table ES-3
Mitigation Measures to Reduce GHG Emissions

Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
Transportation-Related Sources (Vehicles)				
MM GCC-1	TDM Program for Residents, Students, Resort Guests and Employees	TDM #1: The Project shall provide a comprehensive trails network designed to provide safe bicycle and pedestrian access between the various phases, land uses, parks/open space, schools and the Village Core area. The trails network shall also provide connections to the various recreational trails and multi-modal facilities accessing the Project site. TDM #2: The Project shall provide bicycle racks along main travel corridors, adjacent to commercial developments, and at public parks and open spaces within the Project site. TDM #3: The Project shall coordinate with SANDAG's iCommute program to implement carpool, vanpool, and rideshare programs that are specific to the Project. TDM #4: The Project shall promote available websites providing transportation options for residents and businesses. TDM #5: The Project shall create and distribute a "new resident" information packet addressing alternative modes of transportation. TDM #6: The Project shall provide a "School Pool" program to coordinate school-related carpool activities with the local school district and SANDAG. As part of the program, dedicated parking spaces for the School Pool program will be provided at the Village Core area. TDM #7: The Project shall implement a "Walking School Bus" program, whereby neighborhood students are accompanied by a "chaperone" (e.g., parental supervision) to safely walk to	4.969 % reduction in Project VMT.	CAPCOA SDT-1, SDT-2, SDT-9, LUT-8, TRT-3, TRT-7 and TRT-10; Appendix A (Chen Ryan)

Table ES-3
Mitigation Measures to Reduce GHG Emissions

Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
		and from the on-site elementary school. Relatedly, the Project also shall coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school. TDM #8: The Project shall implement traffic calming features throughout the Project site, as well as along Otay Lakes Road, to reduce motor vehicles speed and encourage walking and biking. Traffic calming features may include, but are not limited to: marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, onstreet parking, planter strips with street trees, chicanes/chokers, and others.		
Energy Efficiency				
MM GCC-2	High-Efficiency Lighting in Multi-Family Residences and Non-Residential Buildings	The Project shall utilize high-efficiency interior lighting in multi-family residences and non-residential buildings that is designed to reduce lighting energy use by 15%. (High-efficiency lighting in single-family homes is accounted for within the Zero Net Energy modeling conducted by ConSol; see MM GCC-4.)	The CalEEMod Model assigns a 5.5% reduction in total energy use with the provision of high-efficiency lighting in multi-family residences and non-residential buildings.	CalEEMod Model

Table ES-3 Mitigation Measures to Reduce GHG Emissions				
Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
MM GCC-3	EnergyStar Appliances in Multi-Family Residences and Non-Residential Buildings	The Project shall install EnergyStar appliances in multi-family residences and non-residential buildings. (Energy Star appliances in single-family homes are accounted for within the Zero Net Energy modeling conducted by ConSol; see MM GCC-4.)	The CalEEMod Model assigns a reduction in total energy use based on the provision of EnergyStar clothes washers, dishwashers, fans and refrigerators.	CalEEMod Model
MM GCC-4	Zero Net Energy Single-Family Homes	The Project's single-family residences shall be designed to achieve Zero Net Energy, as defined by the CEC.	Based on calculations by ConSol (Appendix C), Zero Net Energy design will reduce the energy use within single-family residences and associated GHGs by 66%.	Appendix C (ConSol)
MM GCC-5	Beyond Code Efficiencies in Multi-Family and Non-Residential Buildings	The Project's multi-family and non-residential buildings shall be designed to improve energy efficiency by 10% over the 2016 Building Energy Efficiency Standards (Part 6 of Title 24).	The GHG emissions from electricity and natural gas usage subject to Title 24 requirements will be reduced by 10%.	CalEEMod Model
MM GCC-6	Zero-Emission Vehicle Charging Infrastructure	Prior to the issuance of residential building permits, the Project applicant (or its designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning & Development Services Department, the installation of : (a) dedicated 208/240 branch circuits in each garage of every residential unit, and (b) one Level 2 electric vehicle (EV) charging station in the garage in half of all residential units.	According to CAPCOA, use of electric or hybrid vehicles has a range of effectiveness in reducing GHG emissions from 0.4 to 20.3%. Conservatively, no emissions reduction value has been assigned to M-GCC-6 due to estimation complexities.	N/A

Table ES-3
Mitigation Measures to Reduce GHG Emissions

Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
		Prior to the issuance of non-residential building permits, the Project applicant (or its designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning & Development Services Department, the installation of an additional ten (10) Level 2 EV charging stations within the non-residential parking areas located on the Project site.	However, the mitigation strategy provides important infrastructure-level support for the State's ZEV deployment objectives.	
Carbon Offsets				
MM GCC-7	Carbon Offsets – Construction Emissions	As to construction emissions, the Project applicant (or its designee) shall purchase and retire carbon offsets in a quantity sufficient to offset 100 percent of the Project's construction emissions (including sequestration loss from vegetation removal).	The Project shall obtain ~~37,973,384~~ 38,476 MT of CO ₂ e credits and the optional development scenario shall obtain ~~37,973,384~~ 38,476 MT of CO ₂ e credits prior to the County's issuance of the Project's first grading permit.	Tables ES-4b and ES-5b
MM GCC-8	Carbon Offsets – Operational Emissions	As to operational emissions, the Project applicant (or its designee) shall purchase and retire carbon offsets sufficient to offset, for a 30-year period, the operational GHG emissions from that incremental amount of development to net zero.	The Project applicant (or its designee) shall utilize one of the two following compliance options to secure the necessary carbon offsets, as allowed in CEQA Guidelines Section 15126.4(c)(3): (1) Prior to the issuance of the first building permit, the Project applicant (or its designee) shall provide evidence to the San Diego	Tables ES-4b and ES-5b

Table ES-3
Mitigation Measures to Reduce GHG Emissions

Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
			County Planning & Development Services Department (PDS) that is has obtained carbon offsets in the amount of 28,625 MT CO₂e per year multiplied by 30 years. The optional development scenario shall obtain carbon offsets in the amount of 28,567 MT CO₂e per year multiplied by 30 years. (2) Prior to the issuance of each increment of building permits for the phased development of the Project, the Project applicant (or its designee) shall provide evidence to PDS that it has obtained the amount of carbon offsets required for the increment of development being permitted for a 30-year period. The amount of carbon offsets required shall be based on and include operational GHG emissions as identified in the certified EIR. The	

Table ES-3
Mitigation Measures to Reduce GHG Emissions

Mitigation Measure	Strategy to Reduce GHG Emissions	Description	Emission Reduction	Basis for Emission Reduction
			application(s) for permit issuance shall include, as attachments, emissions calculation worksheets that identify the emissions reduction obligation of the increment of development being permitted and tracking tables that identify any previous carbon offsets purchased, as well as the amount of carbon offsets anticipated to be associated with the unbuilt, unpermitted portion(s) of the Project. Such application materials shall be to the satisfaction of the Director of PDS.	

Table ES-4a SUMMARY OF PROPOSED PROJECT'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH EDCS AND REGULATORY COMPLIANCE MEASURES)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO₂	CH₄	N₂O	CO₂e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Total	37,769,38,272	8.0812	0.0000	37,973,38,476
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	7,792	0.2133	0.1125	7,831
Water Consumption	426	3.6065	0.0881	543
Solid Waste Handling	238	14.0682	0.0000	590
Vehicles	24,212	1.1876	0.0000	24,241
Operational Sub-total	33,250	19.1084	0.2108	33,791
Global Warming Potential Factor	1	25	298	
Operational Total	33,250	478	63	33,791

Table ES-4b
SUMMARY OF PROPOSED PROJECT'S
ESTIMATED GREENHOUSE GAS EMISSIONS – 2030
(WITH MITIGATION)

Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Carbon Offsets – MM GCC-7	-	-8.0812	-0.0000	-
Construction Total	0	0	0	0
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	3,845	0.0696	0.0728	3,868
Water Consumption	426	3.6065	0.0881	543
Solid Waste Handling	238	14.0682	0.0000	590
Vehicles	23,010	1.1286	0.0000	23,038
Operational Sub-total	28,101	18.9057	0.1711	28,625
Global Warming Potential Factor	1	25	298	
Operational Total	28,101	473	51	28,625
Operational Carbon Offsets – MM GCC-8				-28,625
Operational Total				0

Table ES-5a SUMMARY OF OPTIONAL DEVELOPMENT SCENARIO'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH EDCS AND REGULATORY COMPLIANCE MEASURES)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Total	37,769,38,272	8.0812	0.0000	37,973,38,476
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	7,839	0.2138	0.1136	7,878
Water Consumption	422	3.5682	0.0871	538
Solid Waste Handling	240	14.1951	0.0000	595
Vehicles	24,212	1.1876	0.0000	24,241
Operational Sub-total	33,295	19.1975	0.2109	33,838
Global Warming Potential Factor	1	25	298	
Operational Total	33,295	480	63	33,838

Table ES-5b SUMMARY OF OPTIONAL DEVELOPMENT SCENARIO'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH MITIGATION)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Carbon Offsets – MM GCC-7	-	-	-	-
	37,769,38,272	-8.0812	-0.0000	37,973,38,476
Construction Total	0	0	0	0
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	3,787	0.0661	0.0728	3,810
Water Consumption	422	3.5682	0.0871	538
Solid Waste Handling	240	14.1951	0.0000	595
Vehicles	23,010	1.1286	0.0000	23,038
Operational Sub-total	28,041	18.9908	0.1701	28,567
Global Warming Potential Factor	1	25	298	
Operational Total	28,041	475	51	28,567
Operational Carbon Offsets – MM GCC-8				-28,567
Operational Total				0

1.0 INTRODUCTION

This report presents an assessment of potential global climate change impacts associated with the proposed Otay Ranch Resort Village Project. More specifically, the evaluation addresses the potential impacts of greenhouse gas (GHG) emissions associated with construction and operation of the proposed Project.

Project Setting

The Otay Ranch Resort Village is located northeast of Lower Otay Lake in the County of San Diego, in the Proctor Valley Parcel of the Otay Subregional Plan approximately one-quarter mile east of the City of Chula Vista. Access is provided via Telegraph Canyon Road which transitions into Otay Lakes Road, and forms the southern boundary of the Project site.

The proposed Project's approximate 1,869-acre planning area consists of a broad mesa sloping to the south, broken by several steep canyons draining from north to south. Portions of the relatively flat mesa extend north into the Jamul Mountains, becoming part of steeper slopes. Site elevations range from approximately 500 feet above mean sea level (AMSL) at the southern end of the property to approximately 1,500 feet AMSL in the northeastern portions. The Project area lies within the watershed of the Otay River, a westerly flowing stream which drains an area of approximately 145 square miles. The site is upstream of Savage Dam, which creates Lower Otay Lake. The Otay Ranch Resort Village site vegetation consists of native coastal sage scrub and grassland habitats disturbed by grazing. Some riparian vegetation occurs in drainage areas of the site.

The proposed Project is located at the interface of urban development and scenic open space. The Otay Valley Parcel of Otay Ranch, the EastLake Vistas residential community, the EastLake Woods residential community, and the U.S. Olympic Training Center compose the edge of urban development to the west. Lower Otay Lake, a recreational reservoir and water supply owned by the City of San Diego, is located to the south. Upper Otay Lake and the Birch Family Estate are located to the northwest. A temporary ultra-light gliding and parachuting airport is located at the

eastern end of the Lower Otay Lake on City of San Diego property. An inactive quarry operation is located further to the east.

Proposed Development Plan

The land uses proposed by the Otay Ranch Resort Village are defined in Table 1 (Otay Ranch Resort Village Land Use Summary). The proposed land uses consist of single-family residential neighborhoods, a mixed use residential and commercial use neighborhood, a resort hotel with associated ancillary facilities, an elementary school site, a site for public safety facilities, open space, preserve land, and park and recreational uses.

- The proposed Project includes approximately 525.0 acres designated for 1,881 single-family detached homes. Five single-family neighborhoods are planned with average densities ranging from 3.2 to 4.4 dwelling units per acre.
- A multiple use neighborhood of 14.1 acres is proposed to contain 57 multi-family residential units and up to 20,000 square feet of commercial uses.
- Approximately 17.4 acres are identified for a resort hotel complex with a maximum of 200 guest rooms and up to 20,000 square feet of ancillary uses including meeting rooms, a conference center, offices, shops, and restaurants.
- The Specific Plan proposes to reserve a 2.1-acre public safety site for a fire station and a 10.0-acre elementary school site.
- Nine parks are planned on 28.6 acres, the largest of which is a 10.3 acre public neighborhood park site. The remaining parks range from 1.3 acres to 2.9 acres.
- The Otay Ranch Resort Village planning area also includes about 144 acres of open space and approximately 1,089 acres of preserve land. Open space generally

consists of large manufactured slopes outside of neighborhoods and brush management areas. Preserve land is usually undisturbed lands or restored habitats set aside for dedication to the Otay Ranch Preserve Owner Manager in satisfaction of Otay Ranch Resource Management Plan (RMP) conveyance requirements.

- Internal circulation comprises about 39.0 acres of the planning area.

This analysis presented in this report addresses both the Project's proposed development scenario (as described above), and the optional development scenario, which would replace the 20,000 square feet of commercial uses and 57 multi-family residences located in the 14.1-acre multiple use neighborhood with 57 single-family residences.

Table 1
Otay Ranch Resort Village Land Use Summary

Land Use	Acres	Units
Single Family Residential¹		
R-1	248.7	796
R-2	55.9	211
R-3	90.2	401
R-4	74.0	263
R-5	55.8	210
Single Family Total	525.1	1,881
Mixed Use		
MU ²	14.1	57
Mixed Use Total	14.1	57
Residential Total	539.1	1,938
Parks		
P-1	2.9	
P-2	1.7	
P-3	2.3	
P-4	2.2	
P-5	10.3	
P-6	2.4	
P-7	2.9	
P-8	1.3	
P-9	2.6	
Parks Total	28.6	
Resort		
Resort ³	17.4	
Resort Total	17.4	
Public Uses		
Public Safety (Fire Station)	2.1	
Elementary School	10.0	
Public Uses Total	12.1	
Open Space & Preserve		
Open Space	143.6	
Preserve	1,089.0	
Open Space & Preserve Total	1,232.9	
Circulation		
Circulation	39.0	
Circulation Total	39.0	
TOTAL	1,869.0	1,938

¹ Single Family Residential includes residential streets and internal slopes.

² Multiple Use includes up to 20,000 square feet of commercial use.

³ Resort includes up to 200 rooms and up to 20,000 square feet of ancillary uses.

⁴ Open Space includes manufactured slopes outside of neighborhoods and associated residential manufactured slopes.

1.1 General Principles and Existing Conditions

Global climate change (GCC) refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), which are known as GHGs. These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere.

GCC may result from natural factors/processes, and/or human activities that change the composition of the atmosphere and alter the surface and features of land. For example, historical records indicate that global climate changes have occurred in the past due to natural phenomena (e.g., ice ages). Recent data indicate that, due to human (i.e., anthropogenic) influence, the current global conditions differ from past climate changes in rate and magnitude. The State of California has been at the forefront of developing solutions to address potential anthropogenic impacts to GCC.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructs emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPCC has concluded that a stabilization of GHGs at 400 to 450 ppm CO₂ equivalent concentration is required to keep global mean warming below 3.6° Fahrenheit (2° Celsius), which is assumed to be necessary to avoid dangerous climate change (Association of Environmental Professionals 2007).

State law defines greenhouse gases as any of the following compounds: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (California Health and Safety Code Section 38505(g)). CO₂, followed by CH₄ and N₂O, are the most common GHGs that result from human activity.

1.2 Sources and Global Warming Potentials of GHG

As discussed further below, the sources of GHG emissions, each GHG's global warming potential (GWP), and the atmospheric lifetime of GHGs are all important variables to be considered in the process of calculating carbon dioxide equivalent (CO₂e) emissions for discretionary land use projects that require a climate change analysis.

The State of California's Air Resources Board (ARB) compiles a GHG inventory of statewide anthropogenic GHG emissions and sinks. The current inventory covers the years 1990 to 2014, and is summarized in Table 2. When accounting for GHGs, emissions are expressed in terms of CO₂e and are typically quantified in metric tons (MT) or millions of metric tons (MMT).

Table 2 State of California GHG Emissions by Sector				
Sector	Total 1990 Emissions (MMTCO₂e)	Percent of Total 1990 Emissions	Total 2016 Emissions (MMTCO₂e)	Percent of Total 2016 Emissions
Agriculture	23.4	5%	33.8	8%
Commercial	14.4	3%	15.2	3%
Electricity Generation	110.6	26%	68.6	16%
Forestry (excluding sinks)	0.2	<1%	N/A	N/A
Industrial	103.0	24%	89.6	21%
Residential	29.7	7%	24.2	6%
Transportation	150.7	35%	169.4	39%
High-GWP Gases	N/A	N/A	19.8	5%
Recycling and Waste	N/A	N/A	8.8	2%
Forestry Sinks	(6.7)	N/A	N/A	N/A
Source: California Greenhouse Gas Emission Inventory – 2018 Edition, https://www.arb.ca.gov/cc/inventory/data/data.htm , CARB 2018.				

GHGs have varying GWPs. The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the “cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas” (EPA 2006). The reference gas for GWP is CO₂; therefore, CO₂ has a GWP of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP of 25, and N₂O, which has a GWP of 298 (ARB 2017). (The GWP values used in this report are sourced to the Fourth Assessment Report (2007) of the Intergovernmental Panel on Climate Change.) Table 3 presents the GWP and atmospheric lifetimes of the GHGs that are regulated by the State of California.

Table 3 Global Warming Potentials and Atmospheric Lifetimes of GHGs			
GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)
Carbon Dioxide	CO ₂	1	Variable
Methane	CH ₄	25	12
Nitrous Oxide	N ₂ O	298	114
Sulfur Hexafluoride	SF ₆	22,800	3,200
Hydrofluorocarbons	HFCs	124 to 14,800	1 to 100
Perfluorocarbons	PFCs	7,390 to 12,200	10,000 to 50,000
Nitrogen Trifluoride	NF ₃	17,200	740
Source: California’s 2017 Climate Change Scoping Plan, ARB 2017			

The primary, human-caused source of CO₂ is the combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). Data from ice cores indicate that CO₂ concentrations remained steady prior to the current period for approximately 10,000 years. Concentrations of CO₂ have increased in the atmosphere since the industrial revolution.

CH₄ is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Human-caused sources of natural gas include landfills, fermentation of manure and cattle farming. Human-caused sources of N₂O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid.

Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses.

1.3 Regulatory Framework

1.3.1 Federal and International Efforts

GCC is being addressed at both the international and federal levels. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of GCC.

Clean Air Act. In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (EPA) has authority under the Clean Air Act to regulate CO₂ emissions if those emissions pose an endangerment to the public health or welfare.

In 2009, the EPA issued an “endangerment finding” under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the EPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed below.

The EPA also has adopted standards that set a national limit on GHG emissions produced from new, modified, and reconstructed power plants, and has issued the Clean Power Plan, which is targeted toward the reduction of carbon emissions from existing power plants. The Clean Power Plan requires states to develop and implement plans that ensure that the power plants in their state – either individually, together or in combination with other measures – achieve interim performance rates over the period of 2022 to 2029 and final performance rates, rate-based goals or mass-based goals by 2030. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review. Additionally, in March 2017, President Donald Trump’s Executive Order on Energy Independence directed the EPA to undertake a review of the Clean Power Plan; and, in October 2017, the EPA issued its proposal to repeal the Clean Power Plan. On August 21, 2018, the EPA proposed the Affordable Clean Energy (ACE) rule which would establish emission guidelines for states to develop plans to address greenhouse gas emissions from existing coal-fired power plants. The ACE rule would replace the 2015 Clean Power Plan, which EPA has proposed to repeal because it exceeded EPA's authority. The Clean Power Plan was stayed by the U.S. Supreme Court and has never gone into effect.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and National Highway Traffic Safety Administration issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing these same agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and National Highway Traffic Safety

Administration proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The standards are projected to achieve 163 grams/mile of CO₂ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021.

In 2018, the USEPA and NHTSA proposed to amend certain existing fuel economy and GHG emissions standards for passenger cars and light trucks and establish new standards, covering model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2–3 percent of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. Thus, the timing and consequences of the 2018 federal proposal are speculative at this time.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and National Highway Traffic Safety Administration announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and National Highway Traffic Safety Administration announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program applies to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans and all types of sizes of buses and work trucks. The final standards are expected to lower

carbon dioxide emissions by approximately 1.1 billion MT and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the EPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and to create a separate fuel economy standard for trucks.

Additional provisions of this Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

1.3.2 State Actions

Executive Orders and Legislation Establishing Overarching State Climate Policies

Executive Order S-3-05. In 2005, former Governor Schwarzenegger signed Executive Order S-3-05, which established the following GHG emission reduction goals for California: (1) by 2010, reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (Health & Safety Code, §38550). In order to achieve this reduction mandate, AB 32 requires the ARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

In response to the adoption of AB 32, in 2007, the ARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline. The ARB's adoption of this limit is in accordance with Health & Safety Code section 38550.

Further, in 2008, the ARB adopted the *Climate Change Scoping Plan: A Framework for Change (Scoping Plan)* in accordance with Health & Safety Code section 38561. The *Scoping Plan* establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020.

In 2014, the ARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework (First Update)*.¹ The stated purpose of the *First Update* is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."² The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32. The *First Update* also noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce

¹ Health & Safety Code section 38561(h) requires the ARB to update the Scoping Plan every five years.

² ARB, *First Update* (May 2014), p. 4.

emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.³

In conjunction with the *First Update*, the ARB identified “six key focus areas comprising major components of the State’s economy to evaluate and describe the larger transformative actions that will be needed to meet the State’s more expansive emission reduction needs by 2050.”⁴ Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and, (6) natural and working lands. The *First Update* identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on the ARB’s research efforts, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050.”⁵ Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies.

In December 2017, the ARB adopted *California’s 2017 Climate Change Scoping Plan*. The *2017 Scoping Plan* addresses the statewide emissions reduction target established pursuant to Senate Bill (SB) 32 and Executive Order B-30-15, as discussed below. The *2017 Scoping Plan* includes continuation of the Cap-and-Trade Program through 2030, and incorporates a Mobile Source Strategy (also developed by the ARB) that is intended to increase zero emission vehicle fleet penetration and establish a more stringent Low Carbon Fuel Standard target by 2030.

When discussing project-level GHG emissions reduction actions and thresholds in the *2017 Scoping Plan*, the ARB states “[a]chieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development.”⁶

³ Id. at p. 34.

⁴ Id. at p. 6.

⁵ Id. at p. 32.

⁶ ARB, 2017 Scoping Plan (November 2017), p. 101.

However, the ARB also recognizes that “[a]chieving net zero ... may not be feasible or appropriate for every project ... and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.”⁷ To the extent that a project’s CEQA analysis recommends mitigation to reduce GHG emissions, the ARB “recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits locally.”⁸

2015 State of the State Address. In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today’s petroleum use in cars and trucks by up to 50 percent; (2) increasing the amount of electricity derived from renewable sources from one-third to 50 percent; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the State’s climate adaptation strategy. As discussed below, the second and third pillars have been codified via legislation (SB 350).

Executive Order B-30-15. In April 2015, Governor Brown signed Executive Order B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This reduction goal subsequently was codified through the enactment of SB 32 (see discussion below). This Executive Order also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 (see discussion above). Additionally, the Executive Order directed the ARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

⁷ Id. at p. 102.

⁸ Id. at p. 102.

2016 State of the State Address. In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) that represent 27 countries and six continents.

Senate Bill 32, and Assembly Bill 197. Enacted in 2016, SB 32 codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring the ARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197. Designed to improve the transparency of the ARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires the ARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Executive Order B-55-18. As issued in September 2018, Executive Order B-55-18 establishes a new statewide goal “to achieve carbon neutrality as soon as possible, and not later than 2045, and achieve and maintain net negative emissions thereafter.” This executive order directs the ARB to “work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.”

Energy-Related Sources

Renewable Portfolio Standard. California's Renewable Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. As amended in 2015 by SB 350, retail sellers of electric services must increase procurement from eligible renewable energy resources to 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030. As most recently amended in 2018 by SB 100, retail sellers of electric services must increase procurement from eligible renewable energy resources to 44 percent of total retail sales by 2024, to 50 percent of total retail sales by 2026, to 52 percent of total retail sales by 2027, and to 60 percent of total retail sales by 2030. SB 100 also established a new policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales by December 31, 2045.

Building Energy Efficiency Standards (Title 24). Title 24, Part 6, of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission's (CEC) 2016 Building Energy Efficiency Standards became effective on January 1, 2017. The 2019 Building Energy Efficiency Standards will continue to improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 Standards have been adopted and will become effective on January 1, 2020.

The California Public Utilities Commission, CEC, and the ARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California.

The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC:

“A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single ‘project’ seeking development entitlements and building code permits, measured using the [CEC]’s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings.”⁹

In addition to the CEC’s efforts, in 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11 of Title 24) are commonly referred to as CALGreen, and establish voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. The mandatory standards require the following:

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources’ Model Water Efficient Landscape Ordinance;
- Sixty five (65) percent of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations; and,
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

CALGreen is periodically amended; the most recent 2016 standards became effective on January 1, 2017. The CALGreen 2019 standards will continue to improve upon the 2016 standards for

⁹ CEC, 2015 Integrated Energy Policy Report (2015), p. 41.

new construction of, and additions and alterations to, residential and nonresidential buildings. The CALGreen 2019 standards will go into effect on January 1, 2020.

Appliance Energy Efficiency Standards (Title 20). The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally-regulated appliances and non-federally regulated appliances. The most current Appliance Efficiency Regulations, dated January 2017, cover 23 categories of appliances (e.g., refrigerators; plumbing fixtures; dishwashers; clothes washer and dryers; televisions) and apply to appliances offered for sale in California.

Mobile Sources

Pavley Standards. AB 1493 required the ARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016, which are often times referred to as the “Pavley I” standards. The ARB obtained a waiver from the EPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns.

Low Carbon Fuel Standard. Executive Order S-1-07 requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by the ARB by 2020.¹⁰ In 2009, the ARB approved the Low Carbon Fuel Standard regulations, which became fully effective in April 2010. The regulations were subsequently re-adopted in September 2015 in response to related litigation. In 2018, the ARB adopted an update to the regulations that requires a 20 percent reduction in the carbon intensity of transportation fuels by 2030.

Advanced Clean Cars Program. In 2012, the ARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2017–2025. (This program is sometimes referred to as “Pavley II.”) The program combines the control of smog, soot, and GHGs

¹⁰ Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the “lifecycle” of a transportation fuel.

with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs.

Senate Bill 375. The Sustainable Communities and Climate Protection Act of 2008 (SB 375) coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options.¹¹ SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the Project area (here, the San Diego Association of Governments [SANDAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan that will achieve GHG emission reduction targets set by the ARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG's jurisdiction, including the Project site, the ARB adopted regional targets for reduction of mobile source-related GHG emissions by 7 percent for 2020 and by 13 percent for 2035. (These targets are expressed by the ARB as a percent change in per capita GHG emissions relative to 2005 levels.) In 2018, the ARB adopted updated SB 375 targets that will apply to SANDAG's next plan update cycle. Those targets include a 15 percent reduction in per capita GHG emissions by 2020, and a 19 percent reduction in per capita GHG emissions by 2035. These updated targets will apply to SANDAG's next, prospective planning cycle. At that time, SANDAG will review all the general plan changes that have occurred in cities and counties within its regional area and account for those changes in its Sustainable Community Strategy.

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

¹¹ ARB, First Update (May 2014), pp. 49-50.

Zero Emission Vehicles. Zero emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-2012, which calls for the increased penetration of ZEVs into California’s vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the Executive Order also calls upon the ARB, CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the State’s residents with easy access to ZEV infrastructure.

In its *First Update*, the ARB recognized that the light-duty vehicle fleet “will need to become largely electrified by 2050 in order to meet California’s emission reduction goals.”¹² Accordingly, the ARB’s ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.¹³ Further, one of the elements of SB 350 (2015) – the Clean Energy and Pollution Reduction Act –establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the State’s 2030 and 2050 reduction targets (see Public Utilities Code section 740.12). The ARB’s *2017 Scoping Plan* also identified, as an element of its framework to achieve the statewide 2030 emissions reduction target codified by SB 32, the objective to put 4.2 million zero emission and plug-in hybrid light-duty electric vehicles on the road by 2030.

In 2018, Governor Brown also issued Executive Order B-48-18, which served to launch an eight-year initiative to accelerate the sale of ZEVs through a mix of rebate programs and infrastructure improvements. The Executive Order also sets a new ZEV target of five million EVs in California by 2030 and includes funding for multiple state agencies, including the CEC (in order to increase

¹² Id. at p. 48.

¹³ Id. at p. 47.

charging infrastructure) and the ARB (in order to provide rebates for the purchase of new ZEVs and incentives for low-income customers).

The proliferation of zero emission vehicles is being supported in multiple ways. For example, California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for the ARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles. Additionally, CALGreen requires new residential and non-residential construction to be pre-wired to facilitate the future installation and use of electric vehicle chargers (see Section 4.106.4 and Section 5.106.5.3 of 2016 CALGreen Standards for the residential and non-residential pre-wiring requirements, respectively). As a final example, in January 2017, San Diego Gas & Electric Company (SDG&E) applied to the California Public Utilities Commission for authority to implement numerous programs intended to accelerate the electrification of the transportation sector. SDG&E's application includes, but is not limited to, proposals to: (i) install up to 90,000 charging stations at single-family homes throughout the company's service area; (ii) install charging infrastructure at various park-and-ride locations; (iii) provide incentives for electric taxis and shuttles; and, (iv) provide educational programs and financial incentives for the sale of electric vehicles.

Also of note is AB 1236 (2015), as enacted in California's Planning and Zoning Law, which requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. Prior to this statutory deadline, in August 2016, the County Board of Supervisors adopted Ordinance No. 10437 (N.S.) adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

Water Sources

In response to an ongoing drought in California, Executive Order B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The Executive Order includes specific directives that set strict limits on water usage in the State, and many of the directives have since become permanent water-efficiency standards and requirements. In response to this Executive Order, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Solid Waste Sources

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling*, which identified concepts that would assist the State in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

1.3.3 Local Regulations and Standards

San Diego Forward. In October 2015, and in accordance with the requirements established by SB 375 (discussed above), SANDAG adopted *San Diego Forward: The Regional Plan*. The plan establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl."

In December 2015, the ARB accepted SANDAG's GHG emissions quantification determination for the *San Diego Forward* plan and found that it would meet the regional reduction targets adopted by the ARB in furtherance of SB 375 (see ARB Executive Order G-15-075).

General Plan Update. The County's General Plan Update (County of San Diego 2011) provides smart growth and land use planning principles designed to reduce vehicle miles traveled (VMT) and GHG emissions. As discussed in the General Plan Update, climate change and GHG reduction policies are addressed in plans and programs in multiple elements of the General Plan. The strategies for reduction of GHG emissions in the General Plan Update are as follows:

- Strategy A-1: Reduce vehicle trips generated, gasoline/energy consumption, and greenhouse gas emissions.
- Strategy A-2: Reduce non-renewable electrical and natural gas energy consumption and generation (energy efficiency).
- Strategy A-3: Increase generation and use of renewable energy sources.
- Strategy A-4: Reduce water consumption.
- Strategy A-5: Reduce and maximize reuse of solid wastes.
- Strategy A-6: Promote carbon dioxide consuming landscapes.
- Strategy A-7: Maximize preservation of open spaces, natural areas, and agricultural lands.

The General Plan Update also includes climate adaptation strategies to deal with potential adverse effects of climate change. The climate adaptation strategies include the following:

- Strategy B-1: Reduce risk from wildfire, flooding, and other hazards resulting from climate change.
- Strategy B-2: Conserve and improve water supply due to shortages from climate change.
- Strategy B-3: Promote agricultural lands for local food production.
- Strategy B-4: Provide education and leadership.

The County has also implemented a number of outreach programs such as the Green Building Program, lawn mower trade-in program, and reduction of solid waste by recycling to reduce air quality impacts as well as GHG emissions.

The County General Plan's Conservation and Open Space Element includes policies that are designed to reduce the emissions of criteria air quality pollutants, emissions of GHGs, and energy use in buildings and infrastructure, while promoting the use of renewable energy sources, conservation, and other methods of efficiency. The proposed Project is consistent with the following applicable General Plan Goals, as described in Appendix B of the proposed Project's Draft EIR.

- General Plan Goal COS-1, Inter-Connected Preserve System
- General Plan Goal COS-2, Sustainability of the Natural Environment
- General Plan Goal COS-14, Sustainable Land Development
- General Plan Goal COS-15, Sustainable Architecture and Buildings
- General Plan Goal COS-16, Sustainable Mobility
- General Plan Goal COS-17, Sustainable Solid Waste Management
- General Plan Goal COS-18, Sustainable Energy
- General Plan Goal COS-19, Sustainable Water Supply
- General Plan Goal COS-20, Governance and Administration

Climate Action Plan. In February 2018, the County's Board of Supervisors adopted a Climate Action Plan (CAP) that serves as a guide to reduce GHG emissions in the unincorporated

communities of San Diego County. The adopted CAP includes six chapters: (1) Introduction; (2) Greenhouse Gas Emissions Inventory, Projections, and Reduction Targets; (3) Greenhouse Gas Reduction Strategies and Measures; (4) Climate Change Vulnerability, Resiliency, and Adaptation; (5) Implementation and Monitoring; and, (6) Public Outreach and Engagement. The CAP sets the following County-specific GHG reduction targets: by 2020, a 2 percent reduction from 2014 levels; by 2030, a 40 percent reduction from 2014 levels; and, by 2050, a 77 percent reduction from 2014 levels. The CAP is designed to achieve those targets through the implementation of multiple strategies and measures applicable to five general categories of GHG emission sources: (1) Built Environment and Transportation; (2) Energy; (3) Solid Waste; (4) Water and Wastewater; and, (5) Agriculture and Conservation.

In March 2018, lawsuits were filed by numerous environmental organizations and a business entity challenging the County's adoption of the CAP. In December 2018, the San Diego Superior Court ruled that the County failed to comply with CEQA when adopting the CAP, and directed the County to set aside the approvals of the CAP and the related certification of the Supplemental EIR. In January 2019, the County decided to proceed with an appeal of the trial court's decision, and that appeal is still pending at the time of the publication of this document.

Of relevance to this analysis, the CAP was adopted following issuance of the Notice of Preparation for the proposed Project's EIR. In light of the temporal relationship between the CAP's development and this EIR, and because litigation over the CAP was reasonably foreseeable and imminent based on prior challenges, this EIR does not rely upon or use the CAP or otherwise streamline its environmental analysis based on the CAP. Instead, the EIR uses significance thresholds derived from Appendix G of the CEQA Guidelines, and is informed by CEQA Guidelines Section 15064.4. Notably, CEQA Guidelines Section 15064.4 does not require that the County have an adopted or judicially-validated CAP in place in order to analyze, determine, and mitigate the effects of the proposed Project's GHG emissions.

While the CAP's streamlining tools are not used in this analysis, it is noted that – under the County's CAP-related *Guidelines for Determining Significance: Climate Change* and *Appendix A: Final Climate Action Plan Consistency Review Checklist (CAP Consistency Checklist)* – the

proposed Project would be consistent with the growth projections and land use assumptions made in the CAP. This consistency determination stems from the fact that the Project proposes development that does not exceed the land use density and intensity of that assigned to the Project site under the Otay Ranch GDP/SRP approvals issued in 1993. Because the proposed Project would not result in a more GHG intensive project than that allowed by existing land use designations, the proposed Project would not be required to achieve net zero GHG emissions under the CAP's implementing framework, but would need to implement each of the design-related reduction measures contained in the CAP Consistency Checklist.

1.3.3 Carbon Markets

Carbon markets – both regulatory and voluntary – are a venue for the buying, selling and trading of carbon credits.

California Cap-and-Trade Program. In October 2011, the ARB approved the Cap-and-Trade Program (Cal. Code Regs., tit. 17, §§ 95800-96022) pursuant to AB 32, with compliance obligations that became effective in 2013 for large electric power and industrial plants, and in 2015 for fuel distributors (including transportation fuel and natural gas). California's Cap-and-Trade Program regulates the emissions of these GHG emitters, which are responsible for about 85 percent of the State's total GHG emissions inventory. As described by the ARB:

“Cap-and-trade is a market based regulation that is designed to reduce [GHGs] from multiple sources. Cap-and-trade sets a firm limit or cap on GHGs and minimize[s] the compliance costs of achieving AB 32 goals. The cap will decline approximately 3 percent each year beginning in 2013. Trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies. With a carbon market, a price on carbon is established for GHGs. Market forces spur technological innovation and investments in clean energy. Cap-and-trade is an

environmentally effective and economically efficient response to climate change.”¹⁴

In the Cap-and-Trade Program, the State regulates the quantity of emissions by determining, in advance, how many allowances to issue — i.e., setting the “cap.” Each allowance is essentially a permit issued by the State authorizing a certain quantity of GHG emissions. There are only a finite number of allowances, ensuring that covered entities may only lawfully emit a certain quantity of GHGs. If a covered entity wishes to emit carbon, it must obtain allowances to authorize those emissions.

Notably, entities regulated by the Cap-and-Trade Program have direct operational control of the long-term GHG emissions from the source profile, whereas land use developers do not have continuing control and authority over many (if not all) of the sources (e.g., homeowners decide when to turn appliances on and off; business owners decide their hours of operation). It also is noted that covered entities (e.g., fuel refineries) regulated by the Cap-and-Trade Program are not required to achieve a net zero GHG emissions level. Rather, such entities are subject to a declining GHG emissions cap that gradually and incrementally reduces emissions from the regulated emissions-generating activities. Covered entities are permitted to emit a certain, positive quantity of GHG emissions.

Importantly, the Cap-and-Trade Program has been designed to provide a firm cap, ensuring that the 2020 statewide emissions limit identified by the ARB will *not* be exceeded.¹⁵ Thus, for the emission sources covered by the Program, which are nearly all of the sources associated with land use development projects (see Land Use-Related GHG Emissions Sources Covered by Cap-and-Trade Program, below), compliance with AB 32’s 2020 mandate is assured by the Cap-and-Trade Program.¹⁶

¹⁴ ARB, Cap-and-Trade Program webpage at <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>.

¹⁵ ARB, Scoping Plan (December 2008), pp. 30-31.

¹⁶ San Joaquin Valley Air Pollution Control District (SJVAPCD), APR – 2025, CEQA Determinations of Significance for Projects Subject to [ARB]’s GHG Cap-and-Trade Regulation (June 2014) [“all GHG emission increases resulting from the combustion of any fuel produced, imported and/or delivered in California are

Voluntary Markets. Like a stock or equity that represents a unit of ownership in a company, a carbon credit represents a unit of GHG emissions reductions. Each credit is essentially a certification that a certain quantity of GHG emissions have been avoided, prevented, or sequestered.

A carbon credit “project” may receive carbon credits for specific reductions in GHG emissions that occur as a result of a specific project activity. Examples of project activities that generate carbon credits include reforestation, the capture and destruction of methane emissions from livestock, or clean-burning cook stove replacement projects. A project can only receive offset credits if the project developer demonstrates what is known as the “environmental integrity” of the project.

The most common and generally accepted way for project applicants to demonstrate the environmental integrity of an offset project is by complying with an established, standards-based “protocol.” A “protocol” is a method of measuring emission reductions. A standards-based protocol accomplishes that fundamental goal by establishing the baseline emissions condition for a given activity and then providing the project developer a specific, defined methodology to quantify and verify emissions reductions that occur over and above that baseline condition.

Offset credits are issued by a neutral, third-party “registry” (e.g., Climate Action Reserve) that has undertaken the responsibility of certifying that the emissions reductions have occurred. In what is known as the “voluntary market,” registries review projects and issue recognized offset credits.

Under CEQA Guidelines Section 15126.4(c)(3)-(4), a project’s GHG emissions can be reduced by “[o]ff-site measures, including offsets that are not otherwise required” and “[m]easures that sequester greenhouse gases.” Therefore, the CEQA Guidelines allow projects to reduce GHG

mitigated under Cap-and-Trade ... Therefore, GHG emission increases caused by fuel use (other than jet fuels) are determined to have a less than significant impact on global climate change under CEQA”].

South Coast Air Quality Management District (SCAQMD) has taken a similar position on stationary source projects under its permitting jurisdiction; see, e.g., the Final Negative Declaration (2014) for the Ultramar Inc. Wilmington Refinery Cogeneration Project (SCH No. 2012041014) and the Draft EIR (2015) for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project (SCH No. 2014121014).

emissions by relying on voluntary market offsets that are not otherwise required, as well as other off-site and sequestration measures that result in GHG reductions.

Relatedly, in the *2017 Scoping Plan*, the ARB stated that, “Where further project design or regional investments are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits.”¹⁷ The ARB also has approved AB 900 “environmental leadership” projects, which are provided certain CEQA streamlining benefits, based on determinations that such projects can use carbon offsets to achieve GHG neutrality, as required by Public Resources Code Section 21183(c).

Information regarding the use of offsets in the context of CEQA also is available in Section IX of the State-approved “Newhall Ranch Greenhouse Gas Reduction Plan.” Section IX of that Plan outlines various protocols and standards that should be followed in order for a registry and the offsets it issues to qualify as effective CEQA mitigation.

¹⁷ Appendix B of the *2017 Scoping Plan* provides that CEQA lead agencies should consider: (1) requiring projects to purchase carbon credits from credible offset registries, and (2) encouraging projects to select local and California-only carbon credits, where available.

2.0 POTENTIAL CLIMATE CHANGE IMPACTS TO PROJECT SITE

2.1 Existing Conditions

The Project site is currently undeveloped and includes disturbed areas and native vegetation, consisting mainly of coastal sage scrub and grassland. Natural vegetation and soils temporarily store carbon as part of the terrestrial carbon cycle. Carbon is assimilated into plants as they grow and then dispersed back into the environment when they die. Therefore, there are two existing sources of carbon storage at the Project site: natural vegetation and soils.

It is difficult to assess net changes in carbon storage associated with the proposed Project, but carbon sequestration rates for native vegetation in the Otay Ranch region are relatively low in comparison to heavily vegetated areas such as forests. For example, according to the USEPA (<http://www.epa.gov/sequestration/rates.html>), riparian areas are estimated to sequester from 0.1 to 0.3 metric tons of CO₂e per acre per year in comparison to forests, which are estimated to sequester 0.6 to 2.6 metric tons of CO₂e per acre per year. Native vegetation in the Otay Ranch region, which consists mainly of scrub, would be expected to provide a low level of carbon sequestration. Thus, the key issue is the balance between the loss of natural vegetation and future carbon storage associated with Project-related landscaping and revegetation of developed areas.

Of relevance also are changes in fire regime. Specifically, carbon in natural vegetation areas is likely to be released into the atmosphere through wildfire every 20 to 150 years, whereas carbon in landscaped areas likely will be protected from wildfire. The balance between these factors will influence the long-term carbon budget on the site.

The majority of carbon within the Project site is stored in the soil. Soil carbon accumulates from inputs of plant and animal matter, roots, and other living components of the soil ecosystem (e.g., bacteria, worms, etc.). Soil carbon is lost through biological respiration, erosion, and other forms of disturbance. Overall, soil carbon moves more slowly through the carbon cycle, and it offers greater potential for long-term carbon storage. Field observations suggest that urban soils can sequester relatively large amounts of carbon. And, observations from across the United States

suggest that warmer and drier climates (such as southern California) may have slightly higher soil organic matter levels when compared to equivalent areas before development.

Based on the site's current conditions and the absence of development, existing GHG emissions are negligible and assumed to be zero.

2.2 Typical Adverse Effects

California-specific studies identifying potential impacts resulting from anticipated global warming have identified the following areas of concern:

Public Health. Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase; and, an increase in wildfires could also occur, with corresponding increases in the release of pollutants, including particulate matter, further compromising air quality.

Potential health effects from GCC may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases (such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Potential public health impacts from climate change would be global in nature rather than site-specific. That being said, because the Project site is not located in an area that is subject to climate sensitive diseases (such as the tropics), it is unlikely that risks associated with these diseases would increase substantially. It is too speculative to estimate the potential frequency of heat waves at the Project site that would be associated with GCC.

Water Resources. A vast network of reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. The State's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

Impacts to water resources could affect the Project site through decreased availability of water in southern California overall. Decreased availability could lead to higher prices and water rationing. However, due to the scientific and factual uncertainties regarding the effects of climate change at a regional level, it is too speculative to quantify the effect of this impact. Nonetheless, reference should be made to the EIR's water supply analysis for further information.

Agriculture. Increased GHG and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development will change as will the intensity and frequency of pests and diseases.

This potential effect of climate change would not directly impact the proposed Project because the Project does not involve agricultural uses.

Ecosystems/Habitats. Continued global warming will likely shift the ranges of existing invasive plants and weeds, thus alternating competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations of and types of pests. Continued global warming would also affect natural ecosystems and biological habitats throughout the State.

Due to the scientific and factual uncertainties regarding the effects of climate change at a regional and site-specific level, particularly as to sensitive biological resources, it is too speculative to assess the effect of this impact on the Project site. Nonetheless, reference should be made to the EIR's analysis of biological resources for further information.

Wildland Fires. Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State.

The Project site generally has a low potential for fire risks due to the type of on-site native vegetation. If fire risks do increase due to GCC, the Project has developed a fire protection plan that will protect the site and minimize hazards arising from wildland fires.

Sea Level Rising and Coastal Flooding. Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions.

Because the Project site is not located in a coastal area, it is unlikely to be affected by rising sea levels.

2.3 California Climate Adaptation Strategy

As part of its climate change planning process, the California Natural Resources Agency prepared its California Climate Adaptation Strategy (CNRA 2009) to summarize the best known science on climate change impacts in California, with the goal of assessing vulnerability to climate change impacts. According to the ARB, some of the potential California-specific impacts of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.

To protect the State’s public health and safety, resources, and economy, the California Natural Resources Agency—in coordination with other state agencies—has updated the *2009 California Climate Adaptation Strategy* with a document that is titled, *Safeguarding California: Reducing Climate Risk*. The final *Safeguarding California Plan: 2018 Update* (January 2018) provides policy guidance for state decision makers relative to climate risks in nine sectors: agriculture; biodiversity and habitat; emergency management; energy; forestry; ocean and coastal ecosystems and resources; public health; transportation; and water. It also identifies policies for reducing GHG emissions and accelerating the transition to a clean-energy economy through reductions in emissions, readiness, and continued research.

3.0 CLIMATE CHANGE SIGNIFICANCE CRITERIA

According to Appendix G of the CEQA Guidelines, the following criteria are considered to establish a significance threshold for GCC impacts:

Would the project:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Rationale for Selection of Guidelines. As background, SB 97, enacted in 2007, expressly recognized the need to analyze GHG emissions as a part of the CEQA process. SB 97 required the Governor’s Office of Planning and Research (OPR) to develop, and CNRA to adopt, amendments to the CEQA Guidelines to address the analysis and mitigation of GHG emissions. (Pub. Resources Code, §21083.05.) In 2010, a series of CEQA Guidelines amendments were adopted to fulfill SB 97 requirements, including revisions to Appendix G of the CEQA Guidelines. The Appendix G revisions included two questions related to GHG emissions, which were intended to satisfy the Legislative directive in Public Resources Code Section 21083.05 that the effects of GHG emissions be analyzed under CEQA. (The continued utilization of Appendix G, as set forth above, accords to the analytical framework set forth in the Project’s Draft EIR (March 2015).

Section 15064.4 of the CEQA Guidelines was added as one of the amendments addressing GHG emissions. As most recently amended in December 2018, Section 15064.4 states that the “determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” Section 15064.4(b)(1)-(3) further states that, “a lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment: (1)

[t]he extent to which a project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; (2) [w]hether project emissions exceed a threshold of significance that the lead agency determines applies to the project; and, (3) [t]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.”

Recognizing that GHG emissions contribute to the cumulative impact condition of global climate change, Section 15064(h)(1) of the CEQA Guidelines is also applicable. Section 15064(h)(1) states that “the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable.” A cumulative impact may be significant when the project’s incremental effect, though individually limited, is cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of other past, current, and reasonably foreseeable probable future projects. However, as provided in CEQA Guidelines Section 15130(a)(3), “[a] project’s contribution is less than cumulatively considerable if the project is required to implement...its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.” Further, “[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable” (CEQA Guidelines Section 15064 (h)(4)).

Finally, Section 15064(h)(3) of the CEQA Guidelines is pertinent. Section 15064(h)(3) states that: “[a] lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program...that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.”

4.0 GREENHOUSE GAS INVENTORY

GHG emissions associated with the proposed Project were estimated separately for seven categories of emissions: (1) construction; (2) carbon sequestration; (3) area sources, including fireplace use and landscaping; (4) energy use, including electricity and natural gas usage; (5) water consumption; (6) solid waste handling; and (7) transportation.

The complete emissions inventory is summarized below and included in Appendices B through D.

4.1 Existing Greenhouse Gas Emissions

As discussed in Section 2.1, the site is currently undeveloped and existing site GHG emissions are negligible. Minor amounts of GHG emissions may be associated with intermittent on-site activities (e.g., vehicle use). However, this analysis assumes that the existing emission levels are zero. The analysis takes into account the loss in carbon sequestration from development of the existing site.

4.2 Construction Greenhouse Gas Emissions

Construction GHG emissions include emissions from heavy construction equipment, truck traffic, and worker trips. Emissions were calculated using the California Emissions Estimator Model (CalEEMod) Model Version 2016.3.2 (SCAQMD 2016), based on the anticipated construction schedule to full buildout. In addition, emissions from blasting activities were calculated based on a CO₂ emission factor for consumption of fuel oil from The Climate Registry. The Climate Registry emission factor is 0.01035 of metric tons (MT) of CO₂ per gallon of fuel oil (The Climate Registry 2018). The following assumptions were also applied to estimate GHG emissions based on The Climate Registry CO₂ emission factor: 6% composition of fuel oil #2 in ANFO and 7.41 pounds of fuel oil per gallon. Consistent with the analysis presented in Draft EIR Section 2.2, Air Quality, 48,000 pounds (24 tons) of ANFO were assumed per blast. Based on The Climate Registry assumptions, it was determined that GHG emissions would be 4.02 MT CO₂ per blast. It is estimated that up to 125 days of blasting would be required, with one blast per day. Accordingly, the total GHG emissions from blasting are estimated to be 503 MT CO₂.

4.3 Operational Greenhouse Gas Emissions

Operational GHG emissions were calculated using the CalEEMod Model, with adjustments to account for site-specific conditions.

Area Source Emissions. The CalEEMod Model calculates emissions associated with area sources, including landscaping equipment and hearth (fireplace) use. For this analysis, and for the purposes of the unmitigated and mitigated cases, it was assumed that all residential units would include a fireplace, and that fireplaces would be natural gas. Fireplaces were modeled based on average use for 30 days per year. This assumption is similar to the default value for the SCAQMD within CalEEMod, which assumes that fireplaces would operate 25 days per year, and appropriate in light of the average climatic conditions in southern California.

Energy Use Emissions. Energy use generates GHGs through emissions from power plants that generate electricity, as well as emissions from natural gas usage.

The CalEEMod Model includes energy intensity factors for utilities that are based on emission factors for electricity presented in Power Utility Protocol reports. However, implementation of the RPS will influence GHG emissions associated with the Project's electricity use. Therefore, the emission factors for utility energy use have been adjusted to account for implementation of the 60% RPS.

At a minimum, and for purposes of the unmitigated case, the Project's residential and non-residential buildings would meet the energy efficiency requirements of Title 24 as of 2016. The CalEEMod Model assumes buildings would meet Title 24 as of 2016 energy efficiency standards. The buildings would be constructed post-2016 and would therefore be required to meet the requirements of Title 24 as of 2016. Energy use for single-family residences meeting Title 24 as of 2016 was calculated by ConSol, as presented in Appendix C (ConSol 2017). To account for energy use for multi-family and non-residential buildings meeting Title 24 as of 2016, Title 24 energy use within the CalEEMod model was used..

For purposes of the mitigated case, the CalEEMod Model defaults were revised to reflect the Project's mitigation commitment to achieve the California Energy Commission's Zero Net Energy definition in the Project's single-family residential units. The modeling inputs were derived from Project-specific analysis undertaken by ConSol (see Appendix C).

The CalEEMod model calculates electricity use, and associated GHG emissions, from lighting electricity use separately from electricity use covered by Title 24 (building) and non-Title 24 (i.e., plug loads). The Project's multi-family and non-residential buildings shall be designed to improve energy efficiency by 10% over the 2016 Building Energy Efficiency Standards (Part 6 of Title 24). Additionally, the Project would include high-efficiency lighting that would reduce lighting electricity use by 15% for non-residential and multi-family residential uses; high-efficiency lighting within the single-family residences is accounted for in the modeling conducted by ConSol. The use of high-efficiency lighting in non-residential and multi-family residential uses results in an overall reduction in electricity use, and associated GHGs from electricity use, of 5.5%. High-efficiency lighting for single-family residences is addressed in the ConSol calculations (see Appendix C).

Water. Water use and energy use are often closely linked. The provision of potable water to commercial users consumes large amounts of energy associated with five stages: source and conveyance, treatment, distribution, end use, and wastewater treatment. GHG emissions from water use were calculated based on the CalEEMod model, assuming that low-flow fixtures would be used, and that water-efficient irrigation systems would be employed that would reduce outdoor water use by 30%, based on implementation of the Project-specific Water Conservation Plan. The same assumptions were used in the unmitigated and mitigated cases.

Solid Waste. The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. Solid waste generation rates were estimated from CalEEMod Model, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring.

As previously discussed, AB 341 sets forth a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. The County achieves a high diversion rate currently and is working on developing a high diversion plan to meet the 75% goal. Solid waste diversion rates of 75% were calculated as shown in Appendix D.

Transportation. Several regulatory initiatives have been passed to reduce emissions from on-road vehicles, as discussed in Table 6 and Section 1.3. These measures include the Pavley I standards, the LCFS, and the Advanced Clean Cars program.

The CalEEMod Model uses emission factors from EMFAC2014 for the San Diego Air Basin. The EMFAC2014 model provides estimates of CO₂ emissions with implementation of the Pavley I, and Advanced Clean Cars programs. The LCFS is not included in EMFAC2014 because its GHG reductions are considered to occur upstream.

Total VMT were calculated based on data provided by SANDAG to Chen Ryan (Chen Ryan 2019) to provide a site-specific estimate of daily VMT. Based on this analysis, the weekday VMT is 212,097. According to calculations in the CalEEMod model for the project, the VMT would be reduced on weekends by approximately 3.6%. The weekend VMT is therefore 204,461.5. Total annual VMT in the unmitigated case would be 76,621,314. The emission reduction benefits of the TDM program are accounted for in the mitigated case. Calculation of the VMT and the Chen Ryan memorandum are provided as Appendix A.

5.0 SUMMARY OF ENVIRONMENTAL DESIGN CONSIDERATIONS AND IMPACTS

5.1 Project Greenhouse Gas Emissions

The results of the unmitigated GHG emission calculations are provided in Table 5a for the proposed Project, and Table 5b for the optional development scenario. These emission calculations account for the implementation of the EDCs and regulatory compliance measures identified in Tables ES-1 and ES-2, where quantifiable. The CalEEMod Model outputs are provided in Appendix B.

Table 5a SUMMARY OF PROPOSED PROJECT'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH EDCS AND REGULATORY COMPLIANCE MEASURES)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Total	37,769,38,272	8.0812	0.0000	37,973,38,476
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	7,792	0.2133	0.1125	7,831
Water Consumption	426	3.6065	0.0881	543
Solid Waste Handling	238	14.0682	0.0000	590
Vehicles	24,212	1.1876	0.0000	24,241
Operational Sub-total	33,250	19.1084	0.2108	33,791
Global Warming Potential Factor	1	25	298	
Operational Total	33,250	478	63	33,791

Table 5b SUMMARY OF OPTIONAL DEVELOPMENT SCENARIO'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH EDCS AND REGULATORY COMPLIANCE MEASURES)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Total	37,769,38,272	8.0812	0.0000	37,973,38,476
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	7,839	0.2138	0.1136	7,878
Water Consumption	422	3.5682	0.0871	538
Solid Waste Handling	240	14.1951	0.0000	595
Vehicles	24,212	1.1876	0.0000	24,241
Operational Sub-total	33,295	19.1975	0.2109	33,838
Global Warming Potential Factor	1	25	298	
Operational Total	33,295	480	63	33,838

As shown in Tables 5a and 5b, the proposed Project (and the optional development scenario) would emit about 37,973,38,476 MT CO₂e that are attributable to construction-related activities and approximately 33,791 MT CO₂e per year that are attributable to operational activities for the proposed Project and 33,838 MT CO₂e per year for the optional development scenario, after accounting for the quantifiable effects of regulatory compliance measures and environmental design considerations (but not mitigation measures). As such, the unmitigated, proposed Project would increase the existing emissions level by approximately 33,791 MT CO₂e per year during its operational phase and contribute, on a one-time basis, 37,973,38,476 MT CO₂e that are attributable to construction-related activities. The optional development scenario would increase the existing emissions level by approximately 33,838 MT CO₂e per year during its operational phase and contribute, on a one-time basis, 37,973,38,476 MT CO₂e that are attributable to construction-related activities.

While the Project would result in an obvious change to the existing GHG emissions from the Project site, there is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is considered significant, and there remains no applicable, adopted numeric threshold for assessing the significance of a project's individual emissions as a direct impact.¹⁸ Further, it should be noted that "AB 32 demonstrates California's commitment to reducing GHG emissions and the state's associated contribution to climate change, without intent to limit population or economic growth within the state."¹⁹ As a result, there are negative policy implications arising from the utilization of a uniform numeric threshold because of its potential to conflict with projected population and economic growth. CEQA is not a policy tool to control population or economic growth, and, the future residents and occupants of development enabled by this Project would exist and live somewhere else even if this Project were not approved.²⁰

Nonetheless, in an effort to ensure a conservative analysis, this report concludes that the Project's increase in GHG emissions may have a potentially significant impact on the environment (see CEQA Guidelines §15064.4(b)(1)).

Tables 6a and 6b present emissions for the Project and optional development scenario at buildout in 2030 with implementation of the recommended mitigation measures identified in Table ES-3.

¹⁸ SMAQMD, CEQA Guide (December 2016), p. 6-10 [the air district has "recognize[d] that ... there is no known level of emissions that determines if a single project will substantially impact overall GHG emission levels in the atmosphere"]; SJVAPCD, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (December 2009), p. 3 [the air district has concluded that "existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change"].

¹⁹ SMAQMD, CEQA Guide (December 2016), p. 6-10.

²⁰ CAPCOA, CEQA & Climate Change (January 2008), p. 73 ["[A] land development project, such as a specific plan, does not necessarily create 'new' emitters of GHG, but would theoretically accommodate a greater number of residents in the state. Some of the residents that would move to the project could already be California residents, while some may be from out of state (or would 'take the place' of in-state residents who 'vacate' their current residences to move to the new project). Some also may be associated with new births over deaths (net population growth) in the state. The out-of-state residents would be contributing new emissions in a statewide context, but would not necessarily be generating new emissions in a global context."].

Table 6a SUMMARY OF PROPOSED PROJECT'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH MITIGATION)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Carbon Offsets – MM GCC-7	-	-	-	-
	37,769,38,272	-8.0812	-0.0000	37,973,38,476
Construction Total	0.0000	0.0000	0.0000	0.0000
Operational Emissions				
Area Sources	582	0.0331	0.0102	586
Energy Use	3,845	0.0696	0.0728	3,868
Water Consumption	426	3.6065	0.0881	543
Solid Waste Handling	238	14.0682	0.0000	590
Vehicles	23,010	1.1286	0.0000	23,038
Operational Sub-total	28,101	18.9057	0.1711	28,625
Global Warming Potential Factor	1	25	298	
Operational Total	28,101	473	51	28,625
Operational Carbon Offsets – MM GCC-8				-28,625
Operational Total				0

Table 6b SUMMARY OF OPTIONAL DEVELOPMENT SCENARIO'S ESTIMATED GREENHOUSE GAS EMISSIONS – 2030 (WITH MITIGATION)				
Emission Source	Annual Emissions (Metric tons/year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions				
Construction Activities	37,491,994	8.0812	0.0000	37,695,38,198
Sequestration Loss	4,077	0.0000	0.0000	4,077
Sequestration Gain	-3,799	0.0000	0.0000	-3,799
Construction Carbon Offsets – MM GCC-7	-	-	-	-
	37,769,38,272	-8.0812	-0.0000	37,973,38,476
Construction Total	0.0000	0.0000	0.0000	0.0000
Operational Emissions				
Area Sources	582	0.0328	0.0102	586
Energy Use	3,787	0.0661	0.0728	3,810
Water Consumption	422	3.5682	0.0871	538
Solid Waste Handling	240	14.1951	0.0000	595
Vehicles	23,010	1.1286	0.0000	23,038
Operational Sub-total	28,041	18.9908	0.1701	28,567
Global Warming Potential Factor	1	25	298	
Operational Total	28,041	474	51	28,567
Operational Carbon Offsets – MM GCC-8				-28,567
Operational Total				0

With implementation of the eight (8) mitigation measures presented in Table ES-3, the Project's and optional development scenario's mitigated emissions would be reduced to zero MT CO₂e per year as shown in Tables 6a and 6b. The eight (8) mitigation measures would reduce Project-related GHG emissions to zero by reducing the Project's total quantity of vehicle miles traveled through the implementation of transportation demand management strategies; increasing the efficiency of energy consumption in the Project's built environment through the implementation of green building design strategies; and, securing carbon offsets from credible registries that issue credits for GHG emissions-reducing projects with high environmental integrity.

As such, because the recommended mitigation measures would ensure that the Project would result in no net increase in GHG emissions as compared to the existing environmental setting (see CEQA Guidelines §15064.4(b)(1)), the mitigated Project would not generate GHG emissions that may have a significant impact on the environment and the Project's GHG emissions would be reduced to a less-than-significant level.

5.2 Consistency with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing GHG Emissions

The proposed Project, without mitigation, potentially may conflict with plans, policies or regulations adopted to reduce GHG emissions because the Project would result in an incremental increase in existing GHG emissions levels. However, because the Project would not increase net GHG emissions above existing levels, following implementation of the EDCs and eight (8) recommended mitigation measures, the mitigated Project would not conflict with any local or state plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The following provides additional discussion of plans, policies, and regulations adopted for the purpose of reducing GHG emissions and the determination that the Project does not conflict with such plans, policies, or regulations.

County of San Diego General Plan. The proposed Project is consistent with the County's General Plan Conservation and Open Space Policies that are designed to reduce the emissions of criteria air quality pollutants, emissions of GHGs, and energy use in buildings and infrastructure, while promoting the use of renewable energy sources, conservation, and other methods of efficiency. The following discussion highlights the Project's consistency with applicable General Plan Goals:

- The Project is consistent with General Plan Goals COS-1, Inter-Connected Preserve System, and COS-2, Sustainability of the Natural Environment, through its preservation of open space.
- The Project is consistent with General Plan Goal COS-14, Sustainable Land Development, through its mix of on-site uses, integration into the Otay Ranch master-planned community, proximity to neighboring communities located within the City of Chula Vista and

unincorporated County areas, and use of various design strategies to achieve green building objectives (see, e.g., **MM GCC-2** through **MM GCC-5**).

- The Project is consistent with General Plan Goal COS-15, Sustainable Architecture and Buildings, through its use of various design strategies to achieve green building objectives (see, e.g., **MM GCC-2** through **MM GCC-5**).
- The Project is consistent with General Plan Goal COS-16, Sustainable Mobility, by utilizing a suite of transportation demand management strategies to facilitate the selection of more sustainable transportation modes, and by installing ZEV charging infrastructure (see **Table ES-1** and **MM GCC-1** and **MM GCC-6**).
- The Project is consistent with General Plan Goal COS-17, Sustainable Solid Waste Management, because it will require Project-wide recycling for the single-family and multi-family homes, resort, school, and commercial/retail establishments.
- The Project is consistent with General Plan Goal COS-18, Sustainable Energy, because it will achieve Zero Net Energy standards in its single-family homes and use other strategies to reduce its demand for electricity and natural gas, and providing charging infrastructure for ZEVs (see, e.g., **MM GCC-2** through **MM GCC-6**).
- The Project is consistent with General Plan Goal COS-19, Sustainable Water Supply, by utilizing low-flow fixtures in accordance with the 2016 CALGreen Standards and implementing its site-specific Water Conservation Plan, which will serve to reduce outdoor water consumption by 30 percent.
- The Project is consistent with General Plan Goal COS-20, Governance and Administration, because it would reduce GHG emissions contributing to global climate change by meeting or exceeding the statewide reduction targets established by AB 32 and SB 32, neither of which require that new development achieve a net zero emissions level. The Project demonstrates consistency with this Goal by using a portfolio of on- and off-site emission reduction tools, which maximize on-site opportunities before utilizing feasible and effecting off-site opportunities for GHG reduction.

SANDAG's San Diego Forward Plan. At the regional level, SANDAG's Sustainable Communities Strategy (a component of the *San Diego Forward* plan) is an applicable plan adopted for the purpose of reducing GHGs in accordance with the 2020 and 2035 emission reduction targets adopted by the ARB for the San Diego region pursuant to SB 375.

For purposes of SB 375's underlying policy goals, it is important to recognize that the proposed Project is part of the planned and approved Otay Ranch General Development Plan/Subregional Plan. This master plan, approved in 1993 as a joint planning effort by the City of Chula Vista and the County of San Diego, encompasses 23,000 acres arranged in a series of Villages to be developed over a 50-year period. The Otay Ranch vision and plan contains a balanced mix of residential, commercial, civic, recreational and public facilities, along with an 11,000+ acre open

space preserve, all of which – when viewed from an integrated perspective – reduce the amount of vehicle miles traveled and corresponding GHG emissions. The portion of Otay Ranch located within the City of Chula Vista is in closer proximity to employment centers, transit, and other regional amenities.

In addition to being part of a larger master-planned community that is an element of the region's planned forecast for accommodating anticipated population growth, the proposed Project itself also contains a balanced mix of uses, including resident-serving commercial, retail and office uses, a 10.3-acre community park and 18.3 acres of neighborhood parks, an elementary school site, a fire station site, and a resort with up to 200 rooms and related amenities. The Project's mix of uses allows for the Project to internally capture approximately 19.4 percent of all vehicle trips (i.e., these trips remain within the boundaries of the Project site), with an approximate trip length of one mile in each direction. Further, the Project's mix of land uses, including residential in conjunction with the retail, parks, and school, is coupled with an integrated pathway and trail plan and traffic calming features along internal streets and roads that promote a pedestrian experience for the Project's residents and visitors and facilitate non-vehicular travel, consistent with SB 375. The Project site also is located approximately one-quarter mile east of the City of Chula Vista, and in close proximity to San Miguel Ranch, Rolling Hills Ranch, and Eastlake. Finally, the Project's Transportation Demand Management strategies are estimated to achieve an approximately 4.969 percent reduction in vehicle miles traveled (see Appendix A (Chen Ryan)).

For all of these reasons, and because the Project would achieve no net increase in GHG emissions, the Project would not conflict with SANDAG's implementation of the *San Diego Forward* plan or attainment of its SB 375 reduction targets in 2020 and 2035.

Consistency with SB 32 and S-3-05. As discussed above:

- SB 32 establishes a reduction target to reduce statewide GHG emissions to at least 40 percent below 1990 levels by 2030.
- Executive Order S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

This discussion evaluates whether the GHG emissions trajectory after Project completion would impede the attainment of the 2030 and 2050 GHG reduction goals.

To begin, the ARB has addressed the progress with regard to both the 2030 and 2050 goals. It states in the *First Update* to the *Scoping Plan* that “California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32” (CARB 2014b, p. ES2). With regard to the 2050 target for reducing GHG emissions to 80 percent below 1990 levels, the *First Update* states the following:

This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, the ARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the *2017 Scoping Plan*, which states:

This Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.²¹

As mentioned above, when discussing project-level GHG emissions reduction actions and thresholds for CEQA in the *2017 Scoping Plan*, the ARB states “[a]chieving no net additional increase in GHG emissions ... is an appropriate overall objective for new development.”²²

²¹ ARB, 2017 Scoping Plan (November 2017), p. 6.

²² Id. at p. 101.

Therefore, the Project would not interfere with implementation of any of the above-described GHG reduction goals for 2030 or 2050 because, with implementation of mitigation, the Project achieves carbon neutrality (i.e., a net zero emissions level), thereby resulting in *no* net increase in GHG emissions relative to existing environmental conditions.

The proposed Project, therefore, would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

6.0 CONCLUSIONS

In this case, the proposed Project feasibly can achieve no net increase in GHG emissions through implementation of mitigation measures **MM GCC-1** through **MM GCC-8**. The Project will utilize a suite of s and mitigation measures that reduce GHG emissions through on-site strategies targeted to the Project's built environment and transportation sources, and secure additional, necessary emission reductions through off-site, offset projects. The proposed Project also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan. As mentioned above, the Project is located within an area that has been slated for long-term growth ever since the County of San Diego's 1993 approval of the Otay Ranch General Development Plan/Subregional Plan, and incorporates various strategies that serve to capture vehicle trips internal to the Project site and reduce vehicle miles traveled.

The proposed Project, therefore, would not result in any significant impacts to the global climate with implementation of the identified mitigation measures, and cumulative impacts would be less than significant.

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Appendix A
Calculation of GHGs from Vehicles

GHG Emissions from Vehicles

This Appendix presents the methodology utilized to calculate GHG emission factors for and GHG emissions from vehicles.

Emission Factors Calculation

The GHG emission factors were calculated based on the emission factors from EMFAC2014 within the CalEEMod Model. For the purpose of this analysis, an emission factor for the fleet was calculated based on the CalEEMod Model factors as described below:

The CalEEMod Model's unmitigated defaults indicate that the total VMT for the Project is 67,656,320 miles per year. Based on the EMFAC2014 emission factors utilized by the CalEEMod Model, the Project's total annual CO₂ emissions were 21,401.9282 MT/year, and total annual CH₄ emissions were 1.0467 MT/year. To obtain GHG emission factors for the San Diego County fleet, these emissions were divided by the total VMT derived from the unmitigated defaults as shown below:

$$\begin{aligned}\text{CO}_2 \text{ emission factor, tons/VMT:} & \quad 21,401.9282 \text{ MT/yr} / 67,656,320 \text{ miles/yr} \\ & = 3.16 \times 10^{-4} \text{ MT/VMT}\end{aligned}$$

$$\begin{aligned}\text{CH}_4 \text{ emission factors, tons/VMT:} & \quad 1.0467 \text{ MT/yr} / 67,656,320 \text{ miles/yr} \\ & = 1.55 \times 10^{-8} \text{ MT/VMT}\end{aligned}$$

Total Project VMT and Related GHG Emissions

As documented in the Chen Ryan analysis (included as Attachment A), SANDAG's traffic model estimates that the Project's VMT is 212,097 miles/day for weekday miles. Based on the CalEEMod Model, weekend miles are 3.6% lower than weekday miles. Therefore, the Project's total VMT was calculated as follows:

$$\begin{aligned}\text{Weekday miles:} & \quad 212,097 \text{ VMT} \times 261 \text{ days/year} \\ & = 55,357,317 \text{ miles/year}\end{aligned}$$

$$\begin{aligned}\text{Weekend miles:} & \quad (1-.036) \times 212,097 \text{ VMT} \times 104 \text{ days/year} \\ & = 21,263,997 \text{ miles/year}\end{aligned}$$

$$\text{Total annual VMT:} \quad 76,621,314$$

The Project's traffic-related GHG emissions, therefore, are calculated as follows:

$$76,621,314 \text{ miles/yr} \times 3.16 \times 10^{-4} \text{ MT CO}_2/\text{VMT} = 24,212 \text{ MT CO}_2/\text{yr}$$

$$76,621,314 \text{ miles/yr} \times 1.55 \times 10^{-8} \text{ MT CH}_4/\text{VMT} = 1.1876 \text{ MT CH}_4/\text{yr}$$

TDM strategies that would be implemented per recommended mitigation parameters would reduce VMT by approximately 4.969% as shown below:

$$24,212 \text{ MT CO}_2/\text{yr} \times (1-.04969) = 23,010 \text{ MT CO}_2/\text{yr}$$

$$1.1876 \text{ MT CH}_4/\text{yr} \times (1-.04969) = 1.1286 \text{ MT CH}_4/\text{yr}$$

Appendix B
CalEEMod Model Outputs

Otay Ranch Resort Village Unmitigated - San Diego Air Basin, Annual

Otay Ranch Resort Village Unmitigated

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Condo/Townhouse	57.00	Dwelling Unit	13.10	57,000.00	163
Single Family Housing	1,881.00	Dwelling Unit	525.00	3,385,800.00	5380
Strip Mall	40.00	1000sqft	1.00	40,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW/hr)	361.68598	CH4 Intensity (lb/MW/hr)	0.014558	N2O Intensity (lb/MW/hr)	0.003012

1.3 User Entered Comments & Non-Default Data

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100

tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	195281	200281
tblAreaCoating	Area_Nonresidential_Interior	585843	600843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	31.35	57.00
tblFireplaces	NumberGas	1,034.55	1,881.00
tblFireplaces	NumberNoFireplace	5.70	0.00
tblFireplaces	NumberNoFireplace	188.10	0.00
tblFireplaces	NumberWood	19.95	0.00
tblFireplaces	NumberWood	658.35	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	3.56	13.10
tblLandUse	LotAcreage	610.71	525.00
tblLandUse	LotAcreage	0.92	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014558
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.68598
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003012
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	26.22	28.49
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	949.39
tblSolidWaste	SolidWasteGenerationRate	42.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	ST_TR	0.00	48.10

tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	5.81	8.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	2.85	0.00
tblWoodstoves	NumberCatalytic	94.05	0.00
tblWoodstoves	NumberNoncatalytic	2.85	0.00
tblWoodstoves	NumberNoncatalytic	94.05	0.00

2.0 Emissions Summary

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	16.9322	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638
Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.0691	6,637.0691	0.1970	0.0886	6,668.3855
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	43.7004	517.2191	560.9195	4.5093	0.1103	706.5175
Total	22.2138	25.0319	73.3305	0.2523	25.4828	0.5017	25.9846	6.8212	0.4910	7.3122	281.7475	29,138.2007	29,419.9482	19.8543	0.2091	29,978.6148

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	16.9262	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.0691	6,637.0691	0.1970	0.0886	6,668.3855
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	34.9603	391.4786	426.4390	3.6065	0.0881	542.8396
Total	22.2078	25.0309	73.2270	0.2523	25.4828	0.5011	25.9839	6.8212	0.4904	7.3116	273.0075	29,012.2483	29,285.2557	18.9512	0.1869	29,814.7169

	ROG	NOx	CO	SO2	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	0.03	0.00	0.14	0.00	0.00	0.12	0.00	0.00	0.12	0.01	3.10	0.43	0.46	4.55	10.64	0.55

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	- 4,047.4167
Total	-248.2327

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Unmitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

City Park	148.50	148.50	148.50	229,331	229,331
Condo/Townhouse	456.00	456.00	456.00	1,302,018	1,302,018
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	18,810.00	18,810.00	18810.00	53,708,256	53,708,256
Strip Mall	4,800.00	4,800.00	4800.00	7,392,159	7,392,159
Total	27,195.50	26,295.50	26,295.50	67,656,320	67,656,320

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Condo/Townhouse	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,309.8717	3,309.8717	0.1332	0.0276	3,321.4162
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,309.8717	3,309.8717	0.1332	0.0276	3,321.4162
NaturalGas Mitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694
NaturalGas Unmitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883

Total		0.3362	2.9246	1.6008	0.0184		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694
														5			

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883
Total		0.3362	2.9246	1.6008	0.0184		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694
														5			

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9747	1.8900e-003	3.9000e-004	47.1385

Elementary School	262849	43.1225	1.7400e-003	3.6000e-004	43.2729
Government Office Building	134400	22.0494	8.9000e-004	1.8000e-004	22.1263
Hotel	3.76068e+006	616.9696	0.0248	5.1400e-003	619.1216
Single Family Housing	1.52284e+007	2,498.3327	0.1006	0.0208	2,507.0467
Strip Mall	502400	82.4227	3.3200e-003	6.9000e-004	82.7102
Total		3,309.8717	0.1332	0.0276	3,321.4162

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9747	1.8900e-003	3.9000e-004	47.1385
Elementary School	262849	43.1225	1.7400e-003	3.6000e-004	43.2729
Government Office Building	134400	22.0494	8.9000e-004	1.8000e-004	22.1263
Hotel	3.76068e+006	616.9696	0.0248	5.1400e-003	619.1216
Single Family Housing	1.52284e+007	2,498.3327	0.1006	0.0208	2,507.0467
Strip Mall	502400	82.4227	3.3200e-003	6.9000e-004	82.7102
Total		3,309.8717	0.1332	0.0276	3,321.4162

6.0 Area Detail

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.9262	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Unmitigated	16.9322	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3599	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5213	23.5213	0.0224	0.0000	24.0822
Total	16.9322	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4240	0.1645	14.2564	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3094	23.3094	0.0221	0.0000	23.8623
Total	16.9262	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	426.4390	3.6065	0.0881	542.8396

Unmitigated	560.9195	4.5093	0.1103	706.5175

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.4993	2.6000e-003	5.4000e-004	64.7243
Condo/Townhouse	3.71378 / 2.3413	13.3790	0.1215	2.9600e-003	17.2984
Elementary School	1.45454 / 3.74026	10.3860	0.0478	1.2000e-003	11.9390
Government Office Building	1.9866 / 1.21759	7.0933	0.0650	1.5800e-003	9.1897
Hotel	5.07335 / 0.563706	13.4747	0.1658	4.0000e-003	18.8122
Single Family Housing	122.555 / 77.2628	441.5079	4.0097	0.0977	570.8480
Strip Mall	2.9629 / 1.81597	10.5793	0.0969	2.3600e-003	13.7059
Total		560.9195	4.5093	0.1103	706.5175

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1495	1.8200e-003	3.8000e-004	45.3070

Condo/Townhouse	2.97102 / 1.63891	10.2765	0.0972	2.3600e- 003	13.4105
Elementary School	1.16364 / 2.61818	7.6270	0.0382	9.6000e- 004	8.8671
Government Office Building	1.58928 / 0.852314	5.4527	0.0520	1.2600e- 003	7.1290
Hotel	4.05868 / 0.394594	10.6770	0.1326	3.2000e- 003	14.9467
Single Family Housing	98.0438 / 54.0839	339.1238	3.2072	0.0780	442.5467
Strip Mall	2.37032 / 1.27118	8.1324	0.0775	1.8900e- 003	10.6326
Total		426.4390	3.6065	0.0881	542.8396

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	238.0471	14.0682	0.0000	589.7517
Unmitigated	238.0471	14.0682	0.0000	589.7517

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		238.0471	14.0682	0.0000	589.7517

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810

Total		238.0471	14.0682	0.0000	589.7517

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	2,150.0050	0.0000	0.0000	2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		-4,047.4167	0.0000	0.0000	-4,047.4167

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		3,799.1840	0.0000	0.0000	3,799.1840

Otay Ranch Resort Village Unmitigated Optional Development Scenario - San Diego Air Basin, Annual

Otay Ranch Resort Village Unmitigated Optional Development Scenario San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Single Family Housing	1,938.00	Dwelling Unit	538.10	3,385,800.00	5380
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	361.69	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100

tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	185281	195281
tblAreaCoating	Area_Nonresidential_Interior	555843	585843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	1,065.90	1,938.00
tblFireplaces	NumberNoFireplace	193.80	0.00
tblFireplaces	NumberWood	678.30	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LandUseSquareFeet	3,488,400.00	3,385,800.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	629.22	538.10
tblLandUse	LotAcreage	0.46	1.00
tblLandUse	Population	5,543.00	5,380.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	988.46
tblSolidWaste	SolidWasteGenerationRate	21.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00

tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	96.90	0.00
tblWoodstoves	NumberNoncatalytic	96.90	0.00

2.0 Emissions Summary

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	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	43.2304	512.4051	555.6355	4.4614	0.1091	699.6808
Total	21.5443	23.5599	70.0201	0.2404	24.2133	0.4953	24.7085	6.4813	0.4851	6.9665	283.4247	28,025.2259	28,308.6505	19.8784	0.2081	28,867.6345

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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	34.5843	387.7927	422.3770	3.5682	0.0871	537.5356
Total	21.5382	23.5589	69.9166	0.2404	24.2133	0.4946	24.7079	6.4813	0.4845	6.9659	274.7786	27,900.4015	28,175.1801	18.9848	0.1861	28,705.2693

	ROG	NOx	CO	SO2	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	0.03	0.00	0.15	0.00	0.00	0.12	0.00	0.00	0.13	0.01	3.05	0.45	0.47	4.49	10.57	0.56

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	-248.2327

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Unmitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	19,380.00	19,380.00	19380.00	55,335,779	55,335,779
Strip Mall	2,400.00	2,400.00	2400.00	3,696,079	3,696,079
Total	24,909.50	24,009.50	24,009.50	64,285,745	64,285,745

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
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
NaturalGas Mitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260
NaturalGas Unmitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.6533	0.0464	0.0443	2,433.0261
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.6533	0.0464	0.0443	2,433.0261

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.2055	0.0643	0.0615	3,372.1260

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		3,297.4293	0.1368	0.0274	3,308.9984

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743

Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		3,297.4293	0.1368	0.0274	3,308.9984

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Unmitigated	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3597	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5210	23.5210	0.0224	0.0000	24.0818
Total	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4239	0.1645	14.2562	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3090	23.3090	0.0221	0.0000	23.8619
Total	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	422.3770	3.5682	0.0871	537.5356
Unmitigated	555.6355	4.4614	0.1091	699.6808

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	126.269 / 79.6041	454.8915	4.1317	0.1006	588.1596
Strip Mall	1.48145 / 0.907986	5.2897	0.0485	1.1800e-003	6.8531
Total		555.6355	4.4614	0.1091	699.6808

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e-004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e-003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e-003	14.9470
Single Family Housing	101.015 / 55.7228	349.4038	3.3047	0.0804	455.9673
Strip Mall	1.18516 / 0.63559	4.0663	0.0388	9.4000e-004	5.3164
Total		422.3770	3.5682	0.0871	537.5356

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	240.1943	14.1951	0.0000	595.0712
Unmitigated	240.1943	14.1951	0.0000	595.0712

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		240.1943	14.1951	0.0000	595.0712

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393

Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		240.1943	14.1951	0.0000	595.0712

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	-2,150.0050	0.0000	0.0000	-2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		-4,047.4167	0.0000	0.0000	-4,047.4167

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840

Total		3,799.1840	0.0000	0.0000	3,799.1840
					0

Otay Ranch Resort Village Mitigated - San Diego Air Basin, Annual

Otay Ranch Resort Village Mitigated

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Condo/Townhouse	57.00	Dwelling Unit	13.10	57,000.00	163
Single Family Housing	1,881.00	Dwelling Unit	525.00	3,385,800.00	5380
Strip Mall	40.00	1000sqft	1.00	40,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW/hr)	361.69	CH4 Intensity (lb/MW/hr)	0.015	N2O Intensity (lb/MW/hr)	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50

tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	31.35	57.00
tblFireplaces	NumberGas	1,034.55	1,881.00
tblFireplaces	NumberNoFireplace	5.70	0.00
tblFireplaces	NumberNoFireplace	188.10	0.00
tblFireplaces	NumberWood	19.95	0.00
tblFireplaces	NumberWood	658.35	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	3.56	13.10
tblLandUse	LotAcreage	610.71	525.00
tblLandUse	LotAcreage	0.92	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	26.22	28.49
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	949.39
tblSolidWaste	SolidWasteGenerationRate	42.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00

tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00
tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	5.81	8.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	2.85	0.00
tblWoodstoves	NumberCatalytic	94.05	0.00
tblWoodstoves	NumberNoncatalytic	2.85	0.00
tblWoodstoves	NumberNoncatalytic	94.05	0.00

2.0 Emissions Summary

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	16.9293	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

Energy	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	6,637.1059	6,637.1059	0.2010	0.0885	6,668.4907
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	43.7004	517.2248	560.9252	4.5099	0.1103	706.5339
Total	22.2109	25.0319	73.3305	0.2523	25.4828	0.5017	25.9846	6.8212	0.4910	7.3122	281.7475	29,138.2432	29,419.9907	19.8590	0.2090	29,978.7364

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	16.9233	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Energy	0.3087	2.6858	1.4704	0.0168		0.2133	0.2133		0.2133	0.2133	0.0000	6,149.3958	6,149.3958	0.1869	0.0817	6,178.4082
Mobile	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Waste						0.0000	0.0000		0.0000	0.0000	238.0471	0.0000	238.0471	14.0682	0.0000	589.7517
Water						0.0000	0.0000		0.0000	0.0000	34.9603	391.4830	426.4433	3.6070	0.0880	542.8520
Total	22.1774	24.7921	73.0965	0.2508	25.4828	0.4822	25.9650	6.8212	0.4715	7.2926	273.0075	28,524.5793	28,797.5868	18.9416	0.1800	29,324.7520

	ROG	NOx	CO	SO2	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	0.15	0.96	0.32	0.60	0.00	3.90	0.08	0.00	3.99	0.27	3.10	2.11	2.12	4.62	13.88	2.18

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	- 4,047.4167
Total	-248.2327

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963
Unmitigated	4.9454	21.4596	57.1646	0.2301	25.4828	0.1506	25.6335	6.8212	0.1399	6.9611	0.0000	21,401.9282	21,401.9282	1.0467	0.0000	21,428.0963

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Condo/Townhouse	456.00	456.00	456.00	1,302,018	1,302,018
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857

Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	18,810.00	18,810.00	18810.00	53,708,256	53,708,256
Strip Mall	4,800.00	4,800.00	4800.00	7,392,159	7,392,159
Total	27,195.50	26,295.50	26,295.50	67,656,320	67,656,320

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Condo/Townhouse	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,093.9022	3,093.9022	0.1283	0.0257	3,104.7572
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,309.9084	3,309.9084	0.1373	0.0275	3,321.5214
NaturalGas Mitigated	0.3087	2.6858	1.4704	0.0168		0.2133	0.2133		0.2133	0.2133	0.0000	3,055.4937	3,055.4937	0.0586	0.0560	3,073.6510
NaturalGas Unmitigated	0.3362	2.9245	1.6008	0.0183		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
Elementary School	296959	1.6000e-003	0.0146	0.0122	9.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	15.8469	15.8469	3.0000e-004	2.9000e-004	15.9410
Government Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.39908e+007	0.2372	2.0270	0.8626	0.0129		0.1639	0.1639		0.1639	0.1639	0.0000	2,347.5164	2,347.5164	0.0450	0.0430	2,361.4666
Strip Mall	89200	4.8000e-004	4.3700e-003	3.6700e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7601	4.7601	9.0000e-005	9.0000e-005	4.7883

Total		0.3362	2.9246	1.6008	0.0184		0.2323	0.2323		0.2323	0.2323	0.0000	3,327.1975	3,327.1975	0.0638	0.0610	3,346.9694
														5			

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	761666	4.1100e-003	0.0351	0.0149	2.2000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003	0.0000	40.6454	40.6454	7.8000e-004	7.5000e-004	40.8869
Elementary School	269671	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	14.3907	14.3907	2.8000e-004	2.6000e-004	14.4762
Government Office Building	185910	1.0000e-003	9.1100e-003	7.6600e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.9209	9.9209	1.9000e-004	1.8000e-004	9.9798
Hotel	1.55779e+007	0.0840	0.7636	0.6414	4.5800e-003		0.0580	0.0580		0.0580	0.0580	0.0000	831.2975	831.2975	0.0159	0.0152	836.2375
Single Family Housing	4.0378e+007	0.2177	1.8606	0.7917	0.0119		0.1504	0.1504		0.1504	0.1504	0.0000	2,154.7225	2,154.7225	0.0413	0.0395	2,167.5270
Strip Mall	84640	4.6000e-004	4.1500e-003	3.4900e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5167	4.5167	9.0000e-005	8.0000e-005	4.5436
Total		0.3087	2.6858	1.4703	0.0168		0.2133	0.2133		0.2133	0.2133	0.0000	3,055.4937	3,055.4937	0.0586	0.0560	3,073.6510
														7			

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	46.9752	1.9500e-003	3.9000e-004	47.1400

Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.52284e+007	2,498.3605	0.1036	0.0207	2,507.1260
Strip Mall	502400	82.4237	3.4200e-003	6.8000e-004	82.7128
Total		3,309.9085	0.1373	0.0275	3,321.5214

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	268973	44.1277	1.8300e-003	3.7000e-004	44.2825
Elementary School	236113	38.7366	1.6100e-003	3.2000e-004	38.8725
Government Office Building	124025	20.3475	8.4000e-004	1.7000e-004	20.4189
Hotel	3.38098e+006	554.6833	0.0230	4.6000e-003	556.6294
Single Family Housing	1.43959e+007	2,361.7929	0.0980	0.0196	2,370.0794
Strip Mall	452360	74.2141	3.0800e-003	6.2000e-004	74.4745
Total		3,093.9022	0.1283	0.0257	3,104.7572

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.9233	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438
Unmitigated	16.9293	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3599	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5213	23.5213	0.0224	0.0000	24.0822
Total	16.9293	0.6477	14.5651	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9843	581.9843	0.0331	0.0102	585.8638

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.9834					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4240	0.1645	14.2564	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3094	23.3094	0.0221	0.0000	23.8623
Total	16.9233	0.6467	14.4616	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7723	581.7723	0.0328	0.0102	585.6438

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	426.4433	3.6070	0.0880	542.8520

Unmitigated	560.9252	4.5099	0.1103	706.5339

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Condo/Townhouse	3.71378 / 2.3413	13.3792	0.1215	2.9600e-003	17.2988
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	122.555 / 77.2628	441.5124	4.0102	0.0976	570.8608
Strip Mall	2.9629 / 1.81597	10.5794	0.0970	2.3600e-003	13.7062
Total		560.9252	4.5099	0.1103	706.5339

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084

Condo/Townhouse	2.97102 / 1.63891	10.2766	0.0972	2.3600e- 003	13.4108
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e- 004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e- 003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e- 003	14.9470
Single Family Housing	98.0438 / 54.0839	339.1272	3.2075	0.0780	442.5565
Strip Mall	2.37032 / 1.27118	8.1325	0.0775	1.8800e- 003	10.6328
Total		426.4433	3.6070	0.0880	542.8520

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	238.0471	14.0682	0.0000	589.7517
Unmitigated	238.0471	14.0682	0.0000	589.7517

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		238.0471	14.0682	0.0000	589.7517

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Condo/Townhouse	28.4944	5.7841	0.3418	0.0000	14.3299
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	949.389	192.7174	11.3893	0.0000	477.4492
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810

Total		238.0471	14.0682	0.0000	589.7517

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	2,150.0050	0.0000	0.0000	2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		-4,047.4167	0.0000	0.0000	-4,047.4167

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		3,799.1840	0.0000	0.0000	3,799.1840

Otay Ranch Resort Village Mitigated Optional Development Scenario - San Diego Air Basin, Annual

Otay Ranch Resort Village Mitigated Optional Development Scenario

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	10.00	1000sqft	2.10	10,000.00	0
Elementary School	600.00	Student	10.00	50,162.02	0
City Park	29.70	Acre	29.70	1,293,732.00	0
Hotel	200.00	Room	17.40	290,400.00	0
Single Family Housing	1,938.00	Dwelling Unit	538.10	3,385,800.00	5380
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	361.69	CH4 Intensity (lb/MW hr)	0.015	N2O Intensity (lb/MW hr)	0.003

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	100

tblAreaCoating	Area_EF_Residential_Interior	250	50
tblAreaCoating	Area_Nonresidential_Exterior	185281	195281
tblAreaCoating	Area_Nonresidential_Interior	555843	585843
tblFireplaces	FireplaceDayYear	82.00	30.00
tblFireplaces	NumberGas	1,065.90	1,938.00
tblFireplaces	NumberNoFireplace	193.80	0.00
tblFireplaces	NumberWood	678.30	0.00
tblGrading	AcresOfGrading	2,325.00	0.00
tblGrading	AcresOfGrading	180.00	0.00
tblLandUse	LandUseSquareFeet	3,488,400.00	3,385,800.00
tblLandUse	LotAcreage	0.23	2.10
tblLandUse	LotAcreage	1.15	10.00
tblLandUse	LotAcreage	6.67	17.40
tblLandUse	LotAcreage	629.22	538.10
tblLandUse	LotAcreage	0.46	1.00
tblLandUse	Population	5,543.00	5,380.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	720.49	361.69
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblSequestration	NumberOfNewTrees	0.00	5,176.00
tblSolidWaste	SolidWasteGenerationRate	2.55	1.82
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	9.30	6.64
tblSolidWaste	SolidWasteGenerationRate	109.50	78.18
tblSolidWaste	SolidWasteGenerationRate	2,205.80	988.46
tblSolidWaste	SolidWasteGenerationRate	21.00	29.99
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	10.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TL	7.30	2.67
tblVehicleTrips	CC_TL	7.30	2.00
tblVehicleTrips	ST_TR	22.75	5.00
tblVehicleTrips	ST_TR	0.00	48.10
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	9.91	10.00
tblVehicleTrips	ST_TR	42.04	120.00
tblVehicleTrips	SU_TR	16.74	5.00
tblVehicleTrips	SU_TR	0.00	48.10
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	8.62	10.00

tblVehicleTrips	SU_TR	20.43	120.00
tblVehicleTrips	WD_TR	1.89	5.00
tblVehicleTrips	WD_TR	1.29	1.50
tblVehicleTrips	WD_TR	68.93	48.10
tblVehicleTrips	WD_TR	8.17	8.00
tblVehicleTrips	WD_TR	9.52	10.00
tblVehicleTrips	WD_TR	44.32	120.00
tblWaterMitigation	UseWaterEfficientIrrigationSystemPercentReduction	6.1	30
tblWoodstoves	NumberCatalytic	96.90	0.00
tblWoodstoves	NumberNoncatalytic	96.90	0.00

2.0 Emissions Summary

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	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634
Energy	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	6,649.6348	6,649.6348	0.2010	0.0888	6,681.1244
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	43.2304	512.4051	555.6355	4.4614	0.1091	699.6808
Total	21.5443	23.5599	70.0201	0.2404	24.2133	0.4953	24.7085	6.4813	0.4851	6.9665	283.4247	28,025.2259	28,308.6505	19.8784	0.2081	28,867.6345

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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Energy	0.3110	2.7050	1.4777	0.0170		0.2149	0.2149		0.2149	0.2149	0.0000	6,162.1214	6,162.1214	0.1869	0.0820	6,191.2329
Mobile	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Waste						0.0000	0.0000		0.0000	0.0000	240.1943	0.0000	240.1943	14.1951	0.0000	595.0712
Water						0.0000	0.0000		0.0000	0.0000	34.5843	387.7927	422.3770	3.5682	0.0871	537.5356
Total	21.5105	23.3178	69.7852	0.2389	24.2133	0.4755	24.6888	6.4813	0.4654	6.9467	274.7786	27,412.8882	27,687.6668	18.9707	0.1793	28,215.3779

	ROG	NOx	CO	SO2	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	0.16	1.03	0.34	0.64	0.00	3.99	0.08	0.00	4.07	0.28	3.05	2.18	2.19	4.57	13.84	2.26

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	3,799.1840
Vegetation Land Change	-4,047.4167
Total	-248.2327

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947
Unmitigated	4.5993	19.9661	53.8462	0.2181	24.2133	0.1424	24.3557	6.4813	0.1323	6.6136	0.0000	20,281.2021	20,281.2021	0.9877	0.0000	20,305.8947

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	148.50	148.50	148.50	229,331	229,331
Elementary School	900.00	0.00	0.00	1,159,809	1,159,809
Government Office Building	481.00	481.00	481.00	824,857	824,857
Hotel	1,600.00	1,600.00	1600.00	3,039,889	3,039,889
Single Family Housing	19,380.00	19,380.00	19380.00	55,335,779	55,335,779
Strip Mall	2,400.00	2,400.00	2400.00	3,696,079	3,696,079
Total	24,909.50	24,009.50	24,009.50	64,285,745	64,285,745

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
City Park	9.50	2.67	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	2.00	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Elementary School	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Government Office Building	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Hotel	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Single Family Housing	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782
Strip Mall	0.616428	0.037185	0.177402	0.097684	0.012090	0.005279	0.017663	0.025476	0.001931	0.001677	0.005617	0.000785	0.000782

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

- Exceed Title 24
- Install High Efficiency Lighting
- Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,084.2369	3,084.2369	0.1279	0.0256	3,095.0580
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,297.4293	3,297.4293	0.1368	0.0274	3,308.9984
NaturalGas Mitigated	0.3110	2.7050	1.4777	0.0170		0.2149	0.2149		0.2149	0.2149	0.0000	3,077.8845	3,077.8845	0.0590	0.0564	3,096.1749

NaturalGas Unmitigated	0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.205 5	3,352.2055	0.0643	0.0615	3,372.126 0

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	296959	1.6000e- 003	0.0146	0.0122	9.0000e- 005		1.1100e- 003	1.1100e- 003		1.1100e- 003	1.1100e- 003	0.0000	15.8469	15.8469	3.0000e- 004	2.9000e- 004	15.9410
Government Office Building	201900	1.0900e- 003	9.9000e- 003	8.3100e- 003	6.0000e- 005		7.5000e- 004	7.5000e- 004		7.5000e- 004	7.5000e- 004	0.0000	10.7742	10.7742	2.1000e- 004	2.0000e- 004	10.8382
Hotel	1.69506e+ 007	0.0914	0.8309	0.6980	4.9900e- 003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Single Family Housing	4.53239e+ 007	0.2444	2.0885	0.8887	0.0133		0.1689	0.1689		0.1689	0.1689	0.0000	2,418.6533	2,418.653 3	0.0464	0.0443	2,433.0261
Strip Mall	44600	2.4000e- 004	2.1900e- 003	1.8400e- 003	1.0000e- 005		1.7000e- 004	1.7000e- 004		1.7000e- 004	1.7000e- 004	0.0000	2.3800	2.3800	5.0000e- 005	4.0000e- 005	2.3942
Total		0.3387	2.9460	1.6091	0.0185		0.2340	0.2340		0.2340	0.2340	0.0000	3,352.2055	3,352.205 5	0.0643	0.0615	3,372.1260

Mitigated

	NaturalGa s 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	269671	1.4500e- 003	0.0132	0.0111	8.0000e- 005		1.0000e- 003	1.0000e- 003		1.0000e- 003	1.0000e- 003	0.0000	14.3907	14.3907	2.8000e- 004	2.6000e- 004	14.4762
Government Office Building	185910	1.0000e- 003	9.1100e- 003	7.6600e- 003	5.0000e- 005		6.9000e- 004	6.9000e- 004		6.9000e- 004	6.9000e- 004	0.0000	9.9209	9.9209	1.9000e- 004	1.8000e- 004	9.9798

Hotel	1.55779e+007	0.0840	0.7636	0.6414	4.5800e-003		0.0580	0.0580		0.0580	0.0580	0.0000	831.2975	831.2975	0.0159	0.0152	836.2375
Single Family Housing	4.16015e+007	0.2243	1.9169	0.8157	0.0122		0.1550	0.1550		0.1550	0.1550	0.0000	2,220.0171	2,220.0171	0.0426	0.0407	2,233.2096
Strip Mall	42320	2.3000e-004	2.0700e-003	1.7400e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.2584	2.2584	4.0000e-005	4.0000e-005	2.2718
Total		0.3110	2.7050	1.4777	0.0170		0.2149	0.2149		0.2149	0.2149	0.0000	3,077.8846	3,077.8846	0.0590	0.0564	3,096.1749

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	262849	43.1230	1.7900e-003	3.6000e-004	43.2743
Government Office Building	134400	22.0496	9.1000e-004	1.8000e-004	22.1270
Hotel	3.76068e+006	616.9765	0.0256	5.1200e-003	619.1412
Single Family Housing	1.56898e+007	2,574.0684	0.1068	0.0214	2,583.0996
Strip Mall	251200	41.2118	1.7100e-003	3.4000e-004	41.3564
Total		3,297.4293	0.1368	0.0274	3,308.9984

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	236113	38.7366	1.6100e-003	3.2000e-004	38.8725
Government Office Building	124025	20.3475	8.4000e-004	1.7000e-004	20.4189
Hotel	3.38098e+006	554.6833	0.0230	4.6000e-003	556.6294
Single Family Housing	1.48322e+007	2,433.3624	0.1009	0.0202	2,441.8999
Strip Mall	226180	37.1071	1.5400e-003	3.1000e-004	37.2372
Total		3,084.2369	0.1279	0.0256	3,095.0580

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw

	ROG	NOx	CO	SO2	Fugitive 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	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435
Unmitigated	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4300	0.1655	14.3597	7.6000e-004		0.0798	0.0798		0.0798	0.0798	0.0000	23.5210	23.5210	0.0224	0.0000	24.0818
Total	16.6063	0.6477	14.5649	3.8400e-003		0.1188	0.1188		0.1188	0.1188	0.0000	581.9839	581.9839	0.0331	0.0102	585.8634

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.4373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	14.6826					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0564	0.4822	0.2052	3.0800e-003		0.0390	0.0390		0.0390	0.0390	0.0000	558.4629	558.4629	0.0107	0.0102	561.7816
Landscaping	0.4239	0.1645	14.2562	7.5000e-004		0.0792	0.0792		0.0792	0.0792	0.0000	23.3090	23.3090	0.0221	0.0000	23.8619
Total	16.6003	0.6467	14.4614	3.8300e-003		0.1182	0.1182		0.1182	0.1182	0.0000	581.7720	581.7720	0.0328	0.0102	585.6435

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	422.3770	3.5682	0.0871	537.5356
Unmitigated	555.6355	4.4614	0.1091	699.6808

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 35.387	64.5000	2.6700e-003	5.3000e-004	64.7263
Elementary School	1.45454 / 3.74026	10.3861	0.0478	1.2000e-003	11.9393
Government Office Building	1.9866 / 1.21759	7.0934	0.0650	1.5800e-003	9.1899
Hotel	5.07335 / 0.563706	13.4748	0.1658	4.0000e-003	18.8126
Single Family Housing	126.269 / 79.6041	454.8915	4.1317	0.1006	588.1596
Strip Mall	1.48145 / 0.907986	5.2897	0.0485	1.1800e-003	6.8531

Total		555.6355	4.4614	0.1091	699.6808

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 24.7709	45.1500	1.8700e-003	3.7000e-004	45.3084
Elementary School	1.16364 / 2.61818	7.6271	0.0382	9.6000e-004	8.8673
Government Office Building	1.58928 / 0.852314	5.4528	0.0520	1.2600e-003	7.1292
Hotel	4.05868 / 0.394594	10.6771	0.1326	3.2000e-003	14.9470
Single Family Housing	101.015 / 55.7228	349.4038	3.3047	0.0804	455.9673
Strip Mall	1.18516 / 0.63559	4.0663	0.0388	9.4000e-004	5.3164
Total		422.3770	3.5682	0.0871	537.5356

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

Mitigated	240.1943	14.1951	0.0000	595.0712
Unmitigated	240.1943	14.1951	0.0000	595.0712

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156
Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		240.1943	14.1951	0.0000	595.0712

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.8207	0.3696	0.0218	0.0000	0.9156

Elementary School	78.183	15.8704	0.9379	0.0000	39.3184
Government Office Building	6.64	1.3479	0.0797	0.0000	3.3393
Hotel	78.183	15.8704	0.9379	0.0000	39.3184
Single Family Housing	988.461	200.6487	11.8580	0.0000	497.0985
Strip Mall	29.988	6.0873	0.3598	0.0000	15.0810
Total		240.1943	14.1951	0.0000	595.0712

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e

Category	MT			
Unmitigated	-248.2327	0.0000	0.0000	-248.2327

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 145.03	625.0793	0.0000	0.0000	625.0793
Grassland	189.54 / 50.74	-598.2280	0.0000	0.0000	-598.2280
Others	14.34 / 5.01	0.0000	0.0000	0.0000	0.0000
Scrub	0 / 130.1	1,860.4300	0.0000	0.0000	1,860.4300
Scrub	1470.13 / 962.12	-7,264.5430	0.0000	0.0000	-7,264.5430
Scrub	186.21 / 35.86	2,150.0050	0.0000	0.0000	2,150.0050
Trees	0 / 31.35	3,479.8500	0.0000	0.0000	3,479.8500
Wetlands	8.79 / 8.55	0.0000	0.0000	0.0000	0.0000
Total		-4,047.4167	0.0000	0.0000	-4,047.4167

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e

		MT			
Mixed Hardwood	5176	3,799.1840	0.0000	0.0000	3,799.1840
Total		3,799.1840	0.0000	0.0000	3,799.1840

Otay Ranch Resort Village Year 1 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 1 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.60	Acre	3.60	156,816.00	0
Single Family Housing	101.00	Dwelling Unit	28.30	181,800.00	289

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	78408	0
tblAreaCoating	Area_Nonresidential_Interior	235224	0

tblAreaCoating	Area_Residential_Exterior	122715	0
tblAreaCoating	Area_Residential_Interior	368145	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	500.00	219.00
tblConstructionPhase	NumDays	45.00	129.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblGrading	AcresOfGrading	903.00	41.50
tblGrading	MaterialExported	0.00	438,850.00
tblGrading	MaterialImported	0.00	438,850.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	32.79	28.30
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	46.00
tblTripsAndVMT	WorkerTripNumber	102.00	204.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.2197	24.7491	16.4427	0.0340	1.1850	0.9516	2.1366	0.5265	0.8836	1.4101	0.0000	3,102.1165	3,102.1165	0.7352	0.0000	3,120.4967
Maximum	3.2197	24.7491	16.4427	0.0340	1.1850	0.9516	2.1366	0.5265	0.8836	1.4101	0.0000	3,102.1165	3,102.1165	0.7352	0.0000	3,120.4967

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.2197	24.7491	16.4427	0.0340	0.6600	0.9516	1.6116	0.2588	0.8836	1.1424	0.0000	3,102.1141	3,102.1141	0.7352	0.0000	3,120.4943
Maximum	3.2197	24.7491	16.4427	0.0340	0.6600	0.9516	1.6116	0.2588	0.8836	1.1424	0.0000	3,102.1141	3,102.1141	0.7352	0.0000	3,120.4943

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	44.30	0.00	24.57	50.84	0.00	18.98	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Energy	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Mobile	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	24.1153	0.0000	24.1153	1.4252	0.0000	59.7447
Water						0.0000	0.0000		0.0000	0.0000	2.0877	0.0000	2.0877	0.2144	5.0600e-003	8.9572
Total	7.6950	0.2412	8.6171	0.0149	0.8931	1.1098	2.0029	0.2192	1.1098	1.3290	130.5318	171.0286	301.5603	1.7395	0.0156	349.6898

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	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Energy	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Mobile	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	24.1153	0.0000	24.1153	1.4252	0.0000	59.7447
Water						0.0000	0.0000		0.0000	0.0000	2.0877	0.0000	2.0877	0.2144	5.0600e-003	8.9572
Total	7.6950	0.2412	8.6171	0.0149	0.8931	1.1098	2.0029	0.2192	1.1098	1.3290	130.5318	171.0286	301.5603	1.7395	0.0156	349.6898

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2019	6/30/2019	5	129	
2	Utilities	Trenching	2/1/2019	7/1/2019	5	108	
3	Building Construction	Building Construction	3/1/2019	12/31/2019	5	219	
4	Paving	Paving	7/1/2019	12/31/2019	5	132	
5	Architectural Coating	Architectural Coating	7/1/2019	12/31/2019	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 41.5

Acres of Paving: 0

Residential Indoor: 368,145; Residential Outdoor: 122,715; Non-Residential Indoor: 235,224; Non-Residential Outdoor: 78,408; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	46.00	0.00	109,713.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	204.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8605	0.0000	0.8605	0.4387	0.0000	0.4387	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8463	9.4194	6.7559	0.0111		0.4269	0.4269		0.3928	0.3928	0.0000	995.0059	995.0059	0.3148	0.0000	1,002.872
Total	0.8463	9.4194	6.7559	0.0111	0.8605	0.4269	1.2874	0.4387	0.3928	0.8315	0.0000	995.0059	995.0059	0.3148	0.0000	1,002.872

Unmitigated Construction Off-Site

[illegible]

Worker	0.0117	8.9800e-003	0.0868	2.5000e-004	0.0238	1.7000e-004	0.0240	6.3200e-003	1.6000e-004	6.4800e-003	0.0000	22.2079	22.2079	7.1000e-004	0.0000	22.2257
Total	0.1337	5.7047	1.0148	6.6700e-003	0.0484	6.4800e-003	0.0549	0.0132	6.2000e-003	0.0194	0.0000	655.1140	655.1140	0.1199	0.0000	658.1118

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					0.3356	0.0000	0.3356	0.1711	0.0000	0.1711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.8463	9.4194	6.7559	0.0111		0.4269	0.4269		0.3928	0.3928	0.0000	995.0047	995.0047	0.3148	0.0000	1,002.8750
Total	0.8463	9.4194	6.7559	0.0111	0.3356	0.4269	0.7625	0.1711	0.3928	0.5639	0.0000	995.0047	995.0047	0.3148	0.0000	1,002.8750

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	0.1220	5.6957	0.9280	6.4200e-003	0.0246	6.3100e-003	0.0309	6.8600e-003	6.0400e-003	0.0129	0.0000	632.9061	632.9061	0.1192	0.0000	635.8861
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0117	8.9800e-003	0.0868	2.5000e-004	0.0238	1.7000e-004	0.0240	6.3200e-003	1.6000e-004	6.4800e-003	0.0000	22.2079	22.2079	7.1000e-004	0.0000	22.2257
Total	0.1337	5.7047	1.0148	6.6700e-003	0.0484	6.4800e-003	0.0549	0.0132	6.2000e-003	0.0194	0.0000	655.1140	655.1140	0.1199	0.0000	658.1118

3.3 Utilities - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8312	164.8312	0.0522	0.0000	166.1350
Total	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8312	164.8312	0.0522	0.0000	166.1350

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154
Total	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154

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	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8310	164.8310	0.0522	0.0000	166.1348
Total	0.1298	1.2685	1.2520	1.8300e-003		0.0776	0.0776		0.0714	0.0714	0.0000	164.8310	164.8310	0.0522	0.0000	166.1348

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154
Total	4.2200e-003	3.2400e-003	0.0313	9.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	8.0089	8.0089	2.6000e-004	0.0000	8.0154

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3876	510.3876	0.1242	0.0000	513.4921
Total	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3876	510.3876	0.1242	0.0000	513.4921

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0368	0.9851	0.2646	2.1400e-003	0.0521	6.8200e-003	0.0589	0.0150	6.5200e-003	0.0216	0.0000	208.5041	208.5041	0.0167	0.0000	208.9224
Worker	0.0877	0.0673	0.6506	1.8400e-003	0.1783	1.3000e-003	0.1796	0.0474	1.2000e-003	0.0486	0.0000	166.4357	166.4357	5.3500e-003	0.0000	166.5695
Total	0.1244	1.0523	0.9153	3.9800e-003	0.2304	8.1200e-003	0.2385	0.0624	7.7200e-003	0.0701	0.0000	374.9398	374.9398	0.0221	0.0000	375.4919

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	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3870	510.3870	0.1242	0.0000	513.4915
Total	0.5127	4.5704	3.7322	5.8400e-003		0.2801	0.2801		0.2634	0.2634	0.0000	510.3870	510.3870	0.1242	0.0000	513.4915

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0368	0.9851	0.2646	2.1400e-003	0.0521	6.8200e-003	0.0589	0.0150	6.5200e-003	0.0216	0.0000	208.5041	208.5041	0.0167	0.0000	208.9224
Worker	0.0877	0.0673	0.6506	1.8400e-003	0.1783	1.3000e-003	0.1796	0.0474	1.2000e-003	0.0486	0.0000	166.4357	166.4357	5.3500e-003	0.0000	166.5695
Total	0.1244	1.0523	0.9153	3.9800e-003	0.2304	8.1200e-003	0.2385	0.0624	7.7200e-003	0.0701	0.0000	374.9398	374.9398	0.0221	0.0000	375.4919

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5456	325.5456	0.0979	0.0000	327.9920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5456	325.5456	0.0979	0.0000	327.9920

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321

Total	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321

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	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5452	325.5452	0.0979	0.0000	327.9916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2500	2.4744	2.3630	3.7300e-003		0.1350	0.1350		0.1249	0.1249	0.0000	325.5452	325.5452	0.0979	0.0000	327.9916

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321
Total	7.8100e-003	5.9900e-003	0.0579	1.6000e-004	0.0159	1.2000e-004	0.0160	4.2200e-003	1.1000e-004	4.3300e-003	0.0000	14.8202	14.8202	4.8000e-004	0.0000	14.8321

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7030	33.7030	2.8500e-003	0.0000	33.7741
Total	1.2004	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7030	33.7030	2.8500e-003	0.0000	33.7741

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762
Total	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.1653					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0352	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7029	33.7029	2.8500e-003	0.0000	33.7741
Total	1.2004	0.2423	0.2431	3.9000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	33.7029	33.7029	2.8500e-003	0.0000	33.7741

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762
Total	0.0104	7.9900e-003	0.0772	2.2000e-004	0.0212	1.5000e-004	0.0213	5.6300e-003	1.4000e-004	5.7700e-003	0.0000	19.7603	19.7603	6.4000e-004	0.0000	19.7762

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.8931	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	6.80	81.90	60.26	53,732	53,732
Single Family Housing	961.52	1,000.91	870.62	2,724,420	2,724,420
Total	968.32	1,082.81	930.88	2,778,153	2,778,153

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
NaturalGas Unmitigated	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.36208e+006	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Total		0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.36208e+006	0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986
Total		0.0127	0.1088	0.0463	6.9000e-004		8.8000e-003	8.8000e-003		8.8000e-003	8.8000e-003	0.0000	126.0495	126.0495	2.4200e-003	2.3100e-003	126.7986

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	817684	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	817684	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893
Unmitigated	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3078	0.0975	8.2100e-003	154.1893

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3374	0.1238	7.8228	0.0142		1.0968	1.0968		1.0968	1.0968	104.3287	43.7540	148.0827	0.0963	8.2100e-003	152.9351
Landscaping	0.0224	8.6200e-003	0.7480	4.0000e-005		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	1.2251	1.2251	1.1700e-003	0.0000	1.2543
Total	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3077	0.0975	8.2100e-003	154.1893

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.3374	0.1238	7.8228	0.0142		1.0968	1.0968		1.0968	1.0968	104.3287	43.7540	148.0827	0.0963	8.2100e-003	152.9351
Landscaping	0.0224	8.6200e-003	0.7480	4.0000e-005		4.1600e-003	4.1600e-003		4.1600e-003	4.1600e-003	0.0000	1.2251	1.2251	1.1700e-003	0.0000	1.2543
Total	7.6822	0.1324	8.5708	0.0142		1.1010	1.1010		1.1010	1.1010	104.3287	44.9790	149.3077	0.0975	8.2100e-003	154.1893

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.0877	0.2144	5.0600e-003	8.9572
Unmitigated	2.0877	0.2144	5.0600e-003	8.9572

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 4.28933	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.58056 / 4.14861	2.0877	0.2144	5.0600e-003	8.9572
Total		2.0877	0.2144	5.0600e-003	8.9572

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 4.28933	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.58056 / 4.14861	2.0877	0.2144	5.0600e-003	8.9572
Total		2.0877	0.2144	5.0600e-003	8.9572

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	24.1153	1.4252	0.0000	59.7447

Unmitigated	24.1153	1.4252	0.0000	59.7447

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.31	0.0629	3.7200e-003	0.0000	0.1559
Single Family Housing	118.49	24.0524	1.4215	0.0000	59.5888
Total		24.1153	1.4252	0.0000	59.7447

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.31	0.0629	3.7200e-003	0.0000	0.1559
Single Family Housing	118.49	24.0524	1.4215	0.0000	59.5888
Total		24.1153	1.4252	0.0000	59.7447

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 1 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 1 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.60	Acre	3.60	156,816.00	0
Single Family Housing	101.00	Dwelling Unit	28.30	181,800.00	289

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2030
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	78408	0
tblAreaCoating	Area_Nonresidential_Interior	235224	0

tblAreaCoating	Area_Residential_Exterior	122715	0
tblAreaCoating	Area_Residential_Interior	368145	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	500.00	219.00
tblConstructionPhase	NumDays	45.00	129.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	HHD	0.03	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDA	0.62	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	LHD2	5.2790e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MCY	5.6170e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MH	7.8200e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	OBUS	1.9310e-003	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	SBUS	7.8500e-004	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblFleetMix	UBUS	1.6770e-003	0.00
tblGrading	AcresOfGrading	903.00	41.50
tblGrading	MaterialExported	0.00	438,850.00
tblGrading	MaterialImported	0.00	438,850.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	32.79	28.30
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	46.00
tblTripsAndVMT	WorkerTripNumber	102.00	204.00
tblTripsAndVMT	WorkerTripNumber	55.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	30.5905	310.8850	185.4556	0.4074	16.4359	10.8052	27.2411	7.6389	9.9984	17.6372	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093
Maximum	30.5905	310.8850	185.4556	0.4074	16.4359	10.8052	27.2411	7.6389	9.9984	17.6372	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	30.5905	310.8850	185.4556	0.4074	8.2976	10.8052	19.1028	3.4896	9.9984	13.4880	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093
Maximum	30.5905	310.8850	185.4556	0.4074	8.2976	10.8052	19.1028	3.4896	9.9984	13.4880	0.0000	41,379.9609	41,379.9609	9.8819	0.0000	41,627.0093

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.52	0.00	29.88	54.32	0.00	23.53	0.00	0.00	0.00	0.00	0.00	0.00

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	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Energy	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Mobile	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Total	162.1347	3.7108	199.3645	0.3499	5.5077	26.8464	32.3541	1.3519	26.8464	28.1983	2,804.9448	1,952.7045	4,757.6493	2.6174	0.2346	4,892.9912

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	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Energy	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Mobile	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Total	162.1347	3.7108	199.3645	0.3499	5.5077	26.8464	32.3541	1.3519	26.8464	28.1983	2,804.9448	1,952.7045	4,757.6493	2.6174	0.2346	4,892.9912

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2019	6/30/2019	5	129	
2	Utilities	Trenching	2/1/2019	7/1/2019	5	108	
3	Building Construction	Building Construction	3/1/2019	12/31/2019	5	219	
4	Paving	Paving	7/1/2019	12/31/2019	5	132	
5	Architectural Coating	Architectural Coating	7/1/2019	12/31/2019	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 41.5

Acres of Paving: 0

Residential Indoor: 368,145; Residential Outdoor: 122,715; Non-Residential Indoor: 235,224; Non-Residential Outdoor: 78,408; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	46.00	0.00	109,713.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	204.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	40.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.3414	0.0000	13.3414	6.8021	0.0000	6.8021			0.0000			0.0000
Off-Road	13.1215	146.0374	104.7430	0.1717		6.6188	6.6188		6.0893	6.0893		17,004.7485	17,004.7485	5.3801		17,139.2515
Total	13.1215	146.0374	104.7430	0.1717	13.3414	6.6188	19.9602	6.8021	6.0893	12.8913		17,004.7485	17,004.7485	5.3801		17,139.2515

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7995	89.5412	12.4109	0.1043	0.3891	0.0884	0.4774	0.1082	0.0845	0.1927		11,336.6567	11,336.6567	1.9319		11,384.9544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1806	0.1261	1.4233	4.0200e-003	0.3779	2.6900e-003	0.3806	0.1002	2.4800e-003	0.1027		400.2918	400.2918	0.0128		400.6114
Total	1.9801	89.6672	13.8342	0.1084	0.7670	0.0911	0.8580	0.2084	0.0870	0.2954		11,736.9486	11,736.9486	1.9447		11,785.5658

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.2032	0.0000	5.2032	2.6528	0.0000	2.6528			0.0000			0.0000
Off-Road	13.1215	146.0374	104.7430	0.1717		6.6188	6.6188		6.0893	6.0893	0.0000	17,004.7484	17,004.7484	5.3801		17,139.2515
Total	13.1215	146.0374	104.7430	0.1717	5.2032	6.6188	11.8219	2.6528	6.0893	8.7421	0.0000	17,004.7484	17,004.7484	5.3801		17,139.2515

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7995	89.5412	12.4109	0.1043	0.3891	0.0884	0.4774	0.1082	0.0845	0.1927		11,336.6567	11,336.6567	1.9319		11,384.9544
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1806	0.1261	1.4233	4.0200e-003	0.3779	2.6900e-003	0.3806	0.1002	2.4800e-003	0.1027		400.2918	400.2918	0.0128		400.6114
Total	1.9801	89.6672	13.8342	0.1084	0.7670	0.0911	0.8580	0.2084	0.0870	0.2954		11,736.9486	11,736.9486	1.9447		11,785.5658

3.3 Utilities - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340		3,396.1734	3,396.1734	1.0745		3,423.0362
Total	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340		3,396.1734	3,396.1734	1.0745		3,423.0362

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789
Total	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789

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	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340	0.0000	3,396.1734	3,396.1734	1.0745		3,423.0362
Total	2.4259	23.7093	23.4022	0.0343		1.4500	1.4500		1.3340	1.3340	0.0000	3,396.1734	3,396.1734	1.0745		3,423.0362

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789
Total	0.0785	0.0548	0.6188	1.7500e-003	0.1643	1.1700e-003	0.1655	0.0436	1.0800e-003	0.0447		174.0399	174.0399	5.5600e-003		174.1789

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166		5,161.5235	5,161.5235	1.2558		5,192.9191
Total	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166		5,161.5235	5,161.5235	1.2558		5,192.9191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3314	8.9271	2.3047	0.0199	0.4874	0.0621	0.5495	0.1403	0.0594	0.1997		2,131.3198	2,131.3198	0.1646		2,135.4335
Worker	0.8010	0.5590	6.3120	0.0178	1.6758	0.0119	1.6878	0.4445	0.0110	0.4555		1,775.2073	1,775.2073	0.0567		1,776.6244
Total	1.1324	9.4861	8.6167	0.0377	2.1632	0.0740	2.2373	0.5848	0.0704	0.6552		3,906.5270	3,906.5270	0.2212		3,912.0579

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166	0.0000	5,161.5235	5,161.5235	1.2558		5,192.9191
Total	4.7032	41.9301	34.2407	0.0536		2.5701	2.5701		2.4166	2.4166	0.0000	5,161.5235	5,161.5235	1.2558		5,192.9191

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3314	8.9271	2.3047	0.0199	0.4874	0.0621	0.5495	0.1403	0.0594	0.1997		2,131.3198	2,131.3198	0.1646		2,135.4335
Worker	0.8010	0.5590	6.3120	0.0178	1.6758	0.0119	1.6878	0.4445	0.0110	0.4555		1,775.2073	1,775.2073	0.0567		1,776.6244

Total	1.1324	9.4861	8.6167	0.0377	2.1632	0.0740	2.2373	0.5848	0.0704	0.6552		3,906.5270	3,906.5270	0.2212		3,912.0579

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917		5,437.1605	5,437.1605	1.6344		5,478.0194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917		5,437.1605	5,437.1605	1.6344		5,478.0194

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683
Total	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683

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	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917	0.0000	5,437.1605	5,437.1605	1.6344		5,478.0194
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.7874	37.4908	35.8026	0.0565		2.0461	2.0461		1.8917	1.8917	0.0000	5,437.1605	5,437.1605	1.6344		5,478.0194

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683
Total	0.1178	0.0822	0.9282	2.6200e-003	0.2464	1.7600e-003	0.2482	0.0654	1.6200e-003	0.0670		261.0599	261.0599	8.3400e-003		261.2683

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Archit. Coating	17.6554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5329	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575		562.8961	562.8961	0.0475		564.0847
Total	18.1883	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575		562.8961	562.8961	0.0475		564.0847

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577

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	17.6554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5329	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575	0.0000	562.8961	562.8961	0.0475		564.0847
Total	18.1883	3.6708	3.6827	5.9400e-003		0.2575	0.2575		0.2575	0.2575	0.0000	562.8961	562.8961	0.0475		564.0847

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577
Total	0.1571	0.1096	1.2377	3.4900e-003	0.3286	2.3400e-003	0.3309	0.0872	2.1600e-003	0.0893		348.0799	348.0799	0.0111		348.3577

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	5.5077	0.0000	5.5077	1.3519	0.0000	1.3519		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	6.80	81.90	60.26	53,732	53,732
Single Family Housing	961.52	1,000.91	870.62	2,724,420	2,724,420
Total	968.32	1,082.81	930.88	2,778,153	2,778,153

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
NaturalGas Unmitigated	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6471.45	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Total		0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	6.47145	0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713
Total		0.0698	0.5964	0.2538	3.8100e-003		0.0482	0.0482		0.0482	0.0482		761.3470	761.3470	0.0146	0.0140	765.8713

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200
Unmitigated	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	154.5699	3.0186	190.7997	0.3457		26.7519	26.7519		26.7519	26.7519	2,804.9448	1,176.3529	3,981.2978	2.5885	0.2206	4,111.7580
Landscaping	0.2486	0.0958	8.3110	4.4000e-004		0.0462	0.0462		0.0462	0.0462		15.0046	15.0046	0.0143		15.3620
Total	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	154.5699	3.0186	190.7997	0.3457		26.7519	26.7519		26.7519	26.7519	2,804.9448	1,176.3529	3,981.2978	2.5885	0.2206	4,111.7580
Landscaping	0.2486	0.0958	8.3110	4.4000e-004		0.0462	0.0462		0.0462	0.0462		15.0046	15.0046	0.0143		15.3620
Total	162.0649	3.1144	199.1107	0.3461		26.7982	26.7982		26.7982	26.7982	2,804.9448	1,191.3575	3,996.3023	2.6028	0.2206	4,127.1200

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 2 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 2 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.90	Acre	1.90	82,764.00	0
Single Family Housing	210.00	Dwelling Unit	55.20	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2017

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	41382	0
tblAreaCoating	Area_Nonresidential_Interior	124146	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	219.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblGrading	AcresOfGrading	910.00	78.90
tblGrading	MaterialExported	0.00	834,626.00
tblGrading	MaterialImported	0.00	834,626.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	55.20
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	110.00	220.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	22.00	44.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	3.6844	25.7324	16.4964	0.0376	1.1978	0.8519	2.0497	0.5357	0.7909	1.3266	0.0000	3,419.5986	3,419.5986	0.7834	0.0000	3,439.1841
Maximum	3.6844	25.7324	16.4964	0.0376	1.1978	0.8519	2.0497	0.5357	0.7909	1.3266	0.0000	3,419.5986	3,419.5986	0.7834	0.0000	3,439.1841

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	3.6844	25.7324	16.4964	0.0376	0.6948	0.8519	1.5466	0.2704	0.7909	1.0613	0.0000	3,419.5962	3,419.5962	0.7834	0.0000	3,439.1817
Maximum	3.6844	25.7324	16.4964	0.0376	0.6948	0.8519	1.5466	0.2704	0.7909	1.0613	0.0000	3,419.5962	3,419.5962	0.7834	0.0000	3,439.1817

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	42.00	0.00	24.54	49.52	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0515	0.0000	50.0515	2.9580	0.0000	124.0004
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.0517	0.5020	17.9365	0.0310	1.8301	2.3074	4.1375	0.4492	2.3074	2.7566	271.3134	355.6038	626.9172	3.6116	0.0324	726.8598

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	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0515	0.0000	50.0515	2.9580	0.0000	124.0004
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.0517	0.5020	17.9365	0.0310	1.8301	2.3074	4.1375	0.4492	2.3074	2.7566	271.3134	355.6038	626.9172	3.6116	0.0324	726.8598

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	6/30/2020	5	130	
2	Utilities	Trenching	2/1/2020	7/1/2020	5	110	
3	Building Construction	Building Construction	3/1/2020	12/31/2020	5	219	
4	Paving	Paving	7/1/2020	12/31/2020	5	131	
5	Architectural Coating	Architectural Coating	7/1/2020	12/30/2020	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.9

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 124,146; Non-Residential Outdoor: 41,382; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	165,047.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	220.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8247	0.0000	0.8247	0.4349	0.0000	0.4349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7910	8.6092	6.4745	0.0112		0.3861	0.3861		0.3552	0.3552	0.0000	980.8648	980.8648	0.3172	0.0000	988.7950
Total	0.7910	8.6092	6.4745	0.0112	0.8247	0.3861	1.2108	0.4349	0.3552	0.7900	0.0000	980.8648	980.8648	0.3172	0.0000	988.7950

Unmitigated Construction Off-Site

[illegible]

Worker	0.0134	9.9300e-003	0.0974	2.9000e-004	0.0292	2.1000e-004	0.0294	7.7600e-003	1.9000e-004	7.9500e-003	0.0000	26.3855	26.3855	7.9000e-004	0.0000	26.4053
Total	0.1766	8.2639	1.3924	9.9500e-003	0.0662	6.9500e-003	0.0732	0.0181	6.6400e-003	0.0247	0.0000	980.2514	980.2514	0.1672	0.0000	984.4310

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					0.3216	0.0000	0.3216	0.1696	0.0000	0.1696	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7910	8.6092	6.4745	0.0112		0.3861	0.3861		0.3552	0.3552	0.0000	980.8636	980.8636	0.3172	0.0000	988.7944
Total	0.7910	8.6092	6.4745	0.0112	0.3216	0.3861	0.7077	0.1696	0.3552	0.5248	0.0000	980.8636	980.8636	0.3172	0.0000	988.7944

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	0.1632	8.2539	1.2950	9.6600e-003	0.0370	6.7400e-003	0.0438	0.0103	6.4500e-003	0.0168	0.0000	953.8660	953.8660	0.1664	0.0000	958.0257
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0134	9.9300e-003	0.0974	2.9000e-004	0.0292	2.1000e-004	0.0294	7.7600e-003	1.9000e-004	7.9500e-003	0.0000	26.3855	26.3855	7.9000e-004	0.0000	26.4053
Total	0.1766	8.2639	1.3924	9.9500e-003	0.0662	6.9500e-003	0.0732	0.0181	6.6400e-003	0.0247	0.0000	980.2514	980.2514	0.1672	0.0000	984.4310

3.3 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1234	1.1822	1.2620	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7890	162.7890	0.0527	0.0000	164.1052
Total	0.1234	1.1822	1.2620	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7890	162.7890	0.0527	0.0000	164.1052

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345
Total	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345

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	0.1234	1.1822	1.2619	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7888	162.7888	0.0527	0.0000	164.1050
Total	0.1234	1.1822	1.2619	1.8500e-003		0.0717	0.0717		0.0660	0.0660	0.0000	162.7888	162.7888	0.0527	0.0000	164.1050

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345
Total	3.9800e-003	2.9500e-003	0.0289	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	7.8287	7.8287	2.4000e-004	0.0000	7.8345

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4624	4.1794	3.6811	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1233	505.1233	0.1231	0.0000	508.1999
Total	0.4624	4.1794	3.6811	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1233	505.1233	0.1231	0.0000	508.1999

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.8987	0.2388	2.1400e-003	0.0523	4.3800e-003	0.0567	0.0151	4.1900e-003	0.0193	0.0000	208.0284	208.0284	0.0160	0.0000	208.4270
Worker	0.0888	0.0657	0.6446	1.9300e-003	0.1932	1.3900e-003	0.1946	0.0513	1.2800e-003	0.0526	0.0000	174.6225	174.6225	5.2400e-003	0.0000	174.7536
Total	0.1188	0.9644	0.8834	4.0700e-003	0.2455	5.7700e-003	0.2513	0.0664	5.4700e-003	0.0719	0.0000	382.6509	382.6509	0.0212	0.0000	383.1806

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	0.4624	4.1794	3.6810	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1227	505.1227	0.1231	0.0000	508.1993
Total	0.4624	4.1794	3.6810	5.8700e-003		0.2437	0.2437		0.2292	0.2292	0.0000	505.1227	505.1227	0.1231	0.0000	508.1993

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0300	0.8987	0.2388	2.1400e-003	0.0523	4.3800e-003	0.0567	0.0151	4.1900e-003	0.0193	0.0000	208.0284	208.0284	0.0160	0.0000	208.4270
Worker	0.0888	0.0657	0.6446	1.9300e-003	0.1932	1.3900e-003	0.1946	0.0513	1.2800e-003	0.0526	0.0000	174.6225	174.6225	5.2400e-003	0.0000	174.7536
Total	0.1188	0.9644	0.8834	4.0700e-003	0.2455	5.7700e-003	0.2513	0.0664	5.4700e-003	0.0719	0.0000	382.6509	382.6509	0.0212	0.0000	383.1806

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2343	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9607	318.9607	0.0978	0.0000	321.4068
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2343	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9607	318.9607	0.0978	0.0000	321.4068

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115

Total	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115

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	0.2342	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9603	318.9603	0.0978	0.0000	321.4064
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2342	2.2918	2.3583	3.7300e-003		0.1227	0.1227		0.1135	0.1135	0.0000	318.9603	318.9603	0.0978	0.0000	321.4064

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115
Total	0.0136	0.0101	0.0989	3.0000e-004	0.0296	2.1000e-004	0.0299	7.8800e-003	2.0000e-004	8.0700e-003	0.0000	26.7914	26.7914	8.0000e-004	0.0000	26.8115

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124
Total	1.7498	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5124

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066
Total	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.7180					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123
Total	1.7498	0.2206	0.2399	3.9000e-004		0.0145	0.0145		0.0145	0.0145	0.0000	33.4476	33.4476	2.5900e-003	0.0000	33.5123

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066
Total	0.0106	7.8700e-003	0.0771	2.3000e-004	0.0231	1.7000e-004	0.0233	6.1400e-003	1.5000e-004	6.2900e-003	0.0000	20.8909	20.8909	6.3000e-004	0.0000	20.9066

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8301	0.0000	1.8301	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.59	43.23	31.81	28,359	28,359
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.79	2,124.33	1,842.01	5,692,995	5,692,995

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948
Unmitigated	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0490	0.0184	1.5750	8.0000e-005		8.5500e-003	8.5500e-003		8.5500e-003	8.5500e-003	0.0000	2.5471	2.5471	2.5600e-003	0.0000	2.6110
Total	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0490	0.0184	1.5750	8.0000e-005		8.5500e-003	8.5500e-003		8.5500e-003	8.5500e-003	0.0000	2.5471	2.5471	2.5600e-003	0.0000	2.6110
Total	15.0253	0.2757	17.8402	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5948

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.26381	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.26381	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0515	2.9580	0.0000	124.0004

Unmitigated	50.0515	2.9580	0.0000	124.0004

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.16	0.0325	1.9200e-003	0.0000	0.0805
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0515	2.9580	0.0000	124.0004

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.16	0.0325	1.9200e-003	0.0000	0.0805
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0515	2.9580	0.0000	124.0004

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 2 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 2 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.90	Acre	1.90	82,764.00	0
Single Family Housing	210.00	Dwelling Unit	55.20	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2017
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	41382	0
tblAreaCoating	Area_Nonresidential_Interior	124146	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	219.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	LHD2	5.6920e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MCY	6.5080e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MH	1.5580e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	OBUS	1.8600e-003	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	SBUS	7.3700e-004	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblFleetMix	UBUS	2.2520e-003	0.00
tblGrading	AcresOfGrading	910.00	78.90
tblGrading	MaterialExported	0.00	834,626.00
tblGrading	MaterialImported	0.00	834,626.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	55.20
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	110.00	220.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	22.00	44.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	38.2870	330.0950	184.2826	0.4601	16.1876	9.6443	25.8319	7.6367	8.9230	16.5597	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945
Maximum	38.2870	330.0950	184.2826	0.4601	16.1876	9.6443	25.8319	7.6367	8.9230	16.5597	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	38.2870	330.0950	184.2826	0.4601	8.4480	9.6443	18.0923	3.5559	8.9230	12.4788	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945
Maximum	38.2870	330.0950	184.2826	0.4601	8.4480	9.6443	18.0923	3.5559	8.9230	12.4788	0.0000	46,613.3912	46,613.3912	10.6001	0.0000	46,878.3945

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.81	0.00	29.96	53.44	0.00	24.64	0.00	0.00	0.00	0.00	0.00	0.00

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	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Total	331.9333	7.7202	414.7400	0.7276	10.9591	55.8181	66.7772	2.6900	55.8181	58.5081	5,832.0635	4,060.0774	9,892.1408	5.4437	0.4878	10,173.5845

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	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Total	331.9333	7.7202	414.7400	0.7276	10.9591	55.8181	66.7772	2.6900	55.8181	58.5081	5,832.0635	4,060.0774	9,892.1408	5.4437	0.4878	10,173.5845

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2020	6/30/2020	5	130	
2	Utilities	Trenching	2/1/2020	7/1/2020	5	110	
3	Building Construction	Building Construction	3/1/2020	12/31/2020	5	219	
4	Paving	Paving	7/1/2020	12/31/2020	5	131	
5	Architectural Coating	Architectural Coating	7/1/2020	12/30/2020	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.9

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 124,146; Non-Residential Outdoor: 41,382; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	165,047.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	220.00	72.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.6878	0.0000	12.6878	6.6900	0.0000	6.6900			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642		16,634.1282	16,634.1282	5.3798		16,768.6236
Total	12.1687	132.4499	99.6082	0.1717	12.6878	5.9393	18.6272	6.6900	5.4642	12.1542		16,634.1282	16,634.1282	5.3798		16,768.6236

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	2.3871	128.7339	17.2295	0.1557	0.5808	0.0939	0.6747	0.1615	0.0898	0.2513		16,959.6439	16,959.6439	2.6761		17,026.5451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	2.5926	128.8723	18.8168	0.1605	1.0408	0.0971	1.1379	0.2835	0.0928	0.3763		17,431.5823	17,431.5823	2.6901		17,498.8358

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					4.9483	0.0000	4.9483	2.6091	0.0000	2.6091			0.0000			0.0000
Off-Road	12.1687	132.4499	99.6082	0.1717		5.9393	5.9393		5.4642	5.4642	0.0000	16,634.1282	16,634.1282	5.3798		16,768.6236
Total	12.1687	132.4499	99.6082	0.1717	4.9483	5.9393	10.8876	2.6091	5.4642	8.0733	0.0000	16,634.1282	16,634.1282	5.3798		16,768.6236

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	2.3871	128.7339	17.2295	0.1557	0.5808	0.0939	0.6747	0.1615	0.0898	0.2513		16,959.6439	16,959.6439	2.6761		17,026.5451
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	2.5926	128.8723	18.8168	0.1605	1.0408	0.0971	1.1379	0.2835	0.0928	0.3763		17,431.5823	17,431.5823	2.6901		17,498.8358

3.3 Utilities - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223		3,323.0394	3,323.0394	1.0747		3,349.9078
Total	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223		3,323.0394	3,323.0394	1.0747		3,349.9078

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752
Total	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752

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	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223	0.0000	3,323.0394	3,323.0394	1.0747		3,349.9078
Total	2.2848	21.8930	23.3694	0.0343		1.3286	1.3286		1.2223	1.2223	0.0000	3,323.0394	3,323.0394	1.0747		3,349.9078

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752
Total	0.0734	0.0495	0.5669	1.6900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		168.5494	168.5494	5.0300e-003		168.6752

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929		5,084.9598	5,084.9598	1.2389		5,115.9315
Total	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929		5,084.9598	5,084.9598	1.2389		5,115.9315

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2691	8.1186	2.0683	0.0197	0.4874	0.0397	0.5271	0.1403	0.0380	0.1783		2,117.0886	2,117.0886	0.1562		2,120.9930
Worker	0.8073	0.5439	6.2361	0.0186	1.8073	0.0127	1.8199	0.4794	0.0117	0.4911		1,854.0435	1,854.0435	0.0554		1,855.4276
Total	1.0764	8.6625	8.3044	0.0383	2.2947	0.0524	2.3471	0.6197	0.0497	0.6694		3,971.1321	3,971.1321	0.2115		3,976.4206

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929	0.0000	5,084.9598	5,084.9598	1.2389		5,115.9315
Total	4.2225	38.1679	33.6169	0.0536		2.2257	2.2257		2.0929	2.0929	0.0000	5,084.9598	5,084.9598	1.2389		5,115.9315

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2691	8.1186	2.0683	0.0197	0.4874	0.0397	0.5271	0.1403	0.0380	0.1783		2,117.0886	2,117.0886	0.1562		2,120.9930
Worker	0.8073	0.5439	6.2361	0.0186	1.8073	0.0127	1.8199	0.4794	0.0117	0.4911		1,854.0435	1,854.0435	0.0554		1,855.4276

Total	1.0764	8.6625	8.3044	0.0383	2.2947	0.0524	2.3471	0.6197	0.0497	0.6694		3,971.1321	3,971.1321	0.2115		3,976.4206

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193		5,327.1818	5,327.1818	1.6342		5,368.0360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193		5,327.1818	5,327.1818	1.6342		5,368.0360

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907

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	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193	0.0000	5,327.1818	5,327.1818	1.6342		5,368.0360
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.5492	34.7248	35.7317	0.0565		1.8588	1.8588		1.7193	1.7193	0.0000	5,327.1818	5,327.1818	1.6342		5,368.0360

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907
Total	0.2055	0.1385	1.5874	4.7400e-003	0.4600	3.2300e-003	0.4633	0.1220	2.9700e-003	0.1250		471.9384	471.9384	0.0141		472.2907

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Archit. Coating	26.2295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219		562.8961	562.8961	0.0436		563.9856
Total	26.7139	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219		562.8961	562.8961	0.0436		563.9856

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855
Total	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855

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	26.2295					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4844	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219	0.0000	562.8961	562.8961	0.0436		563.9856
Total	26.7139	3.3677	3.6628	5.9400e-003		0.2219	0.2219		0.2219	0.2219	0.0000	562.8961	562.8961	0.0436		563.9856

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855
Total	0.1615	0.1088	1.2472	3.7200e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		370.8087	370.8087	0.0111		371.0855

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	10.9591	0.0000	10.9591	2.6900	0.0000	2.6900		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.59	43.23	31.81	28,359	28,359
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.79	2,124.33	1,842.01	5,692,995	5,692,995

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790
Unmitigated	331.7882	6.4802	414.2123	0.7197		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.8604					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5449	0.2040	17.5000	9.1000e-004		0.0950	0.0950		0.0950	0.0950		31.1964	31.1964	0.0313		31.9792
Total	331.7882	6.4802	414.2123	0.7196		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.8604					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5449	0.2040	17.5000	9.1000e-004		0.0950	0.0950		0.0950	0.0950		31.1964	31.1964	0.0313		31.9792
Total	331.7882	6.4802	414.2123	0.7196		55.7179	55.7179		55.7179	55.7179	5,832.0635	2,477.0788	8,309.1422	5.4133	0.4587	8,581.1790

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 3 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 3 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2018

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT1	0.05	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6460e-003	0.00
tblFleetMix	LHD2	5.6460e-003	0.00
tblFleetMix	MCY	6.3850e-003	0.00
tblFleetMix	MCY	6.3850e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.4520e-003	0.00
tblFleetMix	MH	1.4520e-003	0.00
tblFleetMix	MHD	0.01	0.00

tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	1.8710e-003	0.00
tblFleetMix	OBUS	1.8710e-003	0.00
tblFleetMix	SBUS	7.3900e-004	0.00
tblFleetMix	SBUS	7.3900e-004	0.00
tblFleetMix	UBUS	2.1730e-003	0.00
tblFleetMix	UBUS	2.1730e-003	0.00
tblGrading	AcresOfGrading	910.00	79.50
tblGrading	MaterialExported	0.00	840,973.00
tblGrading	MaterialImported	0.00	840,973.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	WorkerTripNumber	55.00	28.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	55.00	28.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	3.5823	25.4597	15.7986	0.0377	1.1644	0.7466	1.9110	0.5113	0.6930	1.2043	0.0000	3,439.7366	3,439.7366	0.8020	0.0000	3,459.7876
Maximum	3.5823	25.4597	15.7986	0.0377	1.1644	0.7466	1.9110	0.5113	0.6930	1.2043	0.0000	3,439.7366	3,439.7366	0.8020	0.0000	3,459.7876

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					
2021	3.5823	25.4597	15.7986	0.0377	0.5935	0.7466	1.3401	0.2372	0.6930	0.9302	0.0000	3,439.7342	3,439.7342	0.8020	0.0000	3,459.7852
Maximum	3.5823	25.4597	15.7986	0.0377	0.5935	0.7466	1.3401	0.2372	0.6930	0.9302	0.0000	3,439.7342	3,439.7342	0.8020	0.0000	3,459.7852

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.03	0.00	29.88	53.60	0.00	22.76	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1362	0.5019	17.9318	0.0310	1.8325	2.3074	4.1400	0.4498	2.3074	2.7572	271.3235	355.6038	626.9273	3.6121	0.0324	726.8841

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	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1362	0.5019	17.9318	0.0310	1.8325	2.3074	4.1400	0.4498	2.3074	2.7572	271.3235	355.6038	626.9273	3.6121	0.0324	726.8841

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2021	6/30/2021	5	130	
2	Utilities	Trenching	2/1/2021	7/1/2021	5	108	
3	Building Construction	Building Construction	3/1/2021	12/31/2021	5	218	
4	Paving	Paving	7/1/2021	12/31/2021	5	130	
5	Architectural Coating	Architectural Coating	7/1/2021	12/31/2021	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.5

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	28.00	0.00	210,243.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	120.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9359	0.0000	0.9359	0.4493	0.0000	0.4493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7239	7.6868	6.1425	0.0111		0.3405	0.3405		0.3132	0.3132	0.0000	973.6067	973.6067	0.3149	0.0000	981.4788
Total	0.7239	7.6868	6.1425	0.0111	0.9359	0.3405	1.2764	0.4493	0.3132	0.7625	0.0000	973.6067	973.6067	0.3149	0.0000	981.4788

Unmitigated Construction Off-Site

[illegible]

Worker	6.2800e-003	4.4800e-003	0.0451	1.4000e-004	0.0145	1.0000e-004	0.0146	3.8500e-003	9.0000e-005	3.9400e-003	0.0000	12.6514	12.6514	3.6000e-004	0.0000	12.6605
Total	0.1986	10.0653	1.6034	0.0122	0.0615	7.5400e-003	0.0691	0.0170	7.2000e-003	0.0242	0.0000	1,206.3231	1,206.3231	0.1996	0.0000	1,211.3134

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					0.3650	0.0000	0.3650	0.1752	0.0000	0.1752	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7239	7.6868	6.1425	0.0111		0.3405	0.3405		0.3132	0.3132	0.0000	973.6055	973.6055	0.3149	0.0000	981.4776
Total	0.7239	7.6868	6.1425	0.0111	0.3650	0.3405	0.7055	0.1752	0.3132	0.4885	0.0000	973.6055	973.6055	0.3149	0.0000	981.4776

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	0.1923	10.0608	1.5583	0.0121	0.0470	7.4400e-003	0.0545	0.0131	7.1100e-003	0.0202	0.0000	1,193.6716	1,193.6716	0.1993	0.0000	1,198.6529
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2800e-003	4.4800e-003	0.0451	1.4000e-004	0.0145	1.0000e-004	0.0146	3.8500e-003	9.0000e-005	3.9400e-003	0.0000	12.6514	12.6514	3.6000e-004	0.0000	12.6605
Total	0.1986	10.0653	1.6034	0.0122	0.0615	7.5400e-003	0.0691	0.0170	7.2000e-003	0.0242	0.0000	1,206.3231	1,206.3231	0.1996	0.0000	1,211.3134

3.3 Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3354	164.3354	0.0532	0.0000	165.6641
Total	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3354	164.3354	0.0532	0.0000	165.6641

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206
Total	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206

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	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3352	164.3352	0.0532	0.0000	165.6639
Total	0.1144	1.0806	1.2691	1.8700e-003		0.0640	0.0640		0.0589	0.0589	0.0000	164.3352	164.3352	0.0532	0.0000	165.6639

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206
Total	1.8900e-003	1.3500e-003	0.0136	4.0000e-005	4.3700e-003	3.0000e-005	4.4000e-003	1.1600e-003	3.0000e-005	1.1900e-003	0.0000	3.8179	3.8179	1.1000e-004	0.0000	3.8206

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4900	507.4900	0.1223	0.0000	510.5466
Total	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4900	507.4900	0.1223	0.0000	510.5466

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0136	0.4522	0.1206	1.1800e-003	0.0292	9.6000e-004	0.0302	8.4300e-003	9.2000e-004	9.3500e-003	0.0000	115.0336	115.0336	8.5400e-003	0.0000	115.2471
Worker	0.0459	0.0327	0.3298	1.0200e-003	0.1059	7.5000e-004	0.1066	0.0281	6.9000e-004	0.0288	0.0000	92.4690	92.4690	2.6500e-003	0.0000	92.5352
Total	0.0595	0.4849	0.4504	2.2000e-003	0.1351	1.7100e-003	0.1368	0.0366	1.6100e-003	0.0382	0.0000	207.5026	207.5026	0.0112	0.0000	207.7823

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	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4894	507.4894	0.1223	0.0000	510.5459
Total	0.4165	3.8149	3.6383	5.9000e-003		0.2101	0.2101		0.1975	0.1975	0.0000	507.4894	507.4894	0.1223	0.0000	510.5459

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0136	0.4522	0.1206	1.1800e-003	0.0292	9.6000e-004	0.0302	8.4300e-003	9.2000e-004	9.3500e-003	0.0000	115.0336	115.0336	8.5400e-003	0.0000	115.2471
Worker	0.0459	0.0327	0.3298	1.0200e-003	0.1059	7.5000e-004	0.1066	0.0281	6.9000e-004	0.0288	0.0000	92.4690	92.4690	2.6500e-003	0.0000	92.5352
Total	0.0595	0.4849	0.4504	2.2000e-003	0.1351	1.7100e-003	0.1368	0.0366	1.6100e-003	0.0382	0.0000	207.5026	207.5026	0.0112	0.0000	207.7823

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9161	318.9161	0.0978	0.0000	321.3619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9161	318.9161	0.0978	0.0000	321.3619

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549

Total	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549

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	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9157	318.9157	0.0978	0.0000	321.3615
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2182	2.1159	2.3557	3.7300e-003		0.1101	0.1101		0.1019	0.1019	0.0000	318.9157	318.9157	0.0978	0.0000	321.3615

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549
Total	6.4200e-003	4.5800e-003	0.0462	1.4000e-004	0.0148	1.0000e-004	0.0149	3.9400e-003	1.0000e-004	4.0300e-003	0.0000	12.9457	12.9457	3.7000e-004	0.0000	12.9549

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8085					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0289	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7030	33.7030	2.3100e-003	0.0000	33.7608
Total	1.8374	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7030	33.7030	2.3100e-003	0.0000	33.7608

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042
Total	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.8085					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0289	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7029	33.7029	2.3100e-003	0.0000	33.7607
Total	1.8374	0.2015	0.2399	3.9000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	33.7029	33.7029	2.3100e-003	0.0000	33.7607

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042
Total	5.5100e-003	3.9300e-003	0.0396	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.0963	11.0963	3.2000e-004	0.0000	11.1042

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940
Unmitigated	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5940

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0484	0.0182	1.5703	8.0000e-005		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	2.5471	2.5471	2.5200e-003	0.0000	2.6102
Total	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5941

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0484	0.0182	1.5703	8.0000e-005		8.5700e-003	8.5700e-003		8.5700e-003	8.5700e-003	0.0000	2.5471	2.5471	2.5200e-003	0.0000	2.6102
Total	15.1097	0.2756	17.8355	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5941

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0616	2.9586	0.0000	124.0256

Unmitigated	50.0616	2.9586	0.0000	124.0256

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0616	2.9586	0.0000	124.0256

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0616	2.9586	0.0000	124.0256

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 4 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 4 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.20	Acre	2.20	95,832.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2019

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	47916	0
tblAreaCoating	Area_Nonresidential_Interior	143748	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	131.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.58	0.00
tblFleetMix	LDA	0.58	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.6000e-003	0.00
tblFleetMix	LHD2	5.6000e-003	0.00
tblFleetMix	MCY	6.2790e-003	0.00
tblFleetMix	MCY	6.2790e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.3570e-003	0.00
tblFleetMix	MH	1.3570e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.8880e-003	0.00
tblFleetMix	OBUS	1.8880e-003	0.00
tblFleetMix	SBUS	7.4200e-004	0.00
tblFleetMix	SBUS	7.4200e-004	0.00
tblFleetMix	UBUS	2.0880e-003	0.00
tblFleetMix	UBUS	2.0880e-003	0.00
tblGrading	AcresOfGrading	910.00	79.30
tblGrading	MaterialExported	0.00	838,858.00
tblGrading	MaterialImported	0.00	838,858.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	38.00	76.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	116.00	232.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	23.00	46.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	3.4429	23.6949	16.0398	0.0401	1.3343	0.6446	1.9789	0.5571	0.5985	1.1555	0.0000	3,668.7672	3,668.7672	0.8082	0.0000	3,688.9715
Maximum	3.4429	23.6949	16.0398	0.0401	1.3343	0.6446	1.9789	0.5571	0.5985	1.1555	0.0000	3,668.7672	3,668.7672	0.8082	0.0000	3,688.9715

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	3.4429	23.6949	16.0398	0.0401	0.7636	0.6446	1.4082	0.2830	0.5985	0.8815	0.0000	3,668.7648	3,668.7648	0.8082	0.0000	3,688.9690
Maximum	3.4429	23.6949	16.0398	0.0401	0.7636	0.6446	1.4082	0.2830	0.5985	0.8815	0.0000	3,668.7648	3,668.7648	0.8082	0.0000	3,688.9690

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	42.77	0.00	28.84	49.19	0.00	23.72	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0576	0.0000	50.0576	2.9583	0.0000	124.0155
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1017	0.5018	17.9285	0.0310	1.8316	2.3074	4.1390	0.4496	2.3074	2.7570	271.3195	355.6038	626.9233	3.6119	0.0324	726.8734

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	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0576	0.0000	50.0576	2.9583	0.0000	124.0155
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1017	0.5018	17.9285	0.0310	1.8316	2.3074	4.1390	0.4496	2.3074	2.7570	271.3195	355.6038	626.9233	3.6119	0.0324	726.8734

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2022	6/30/2022	5	130	
2	Utilities	Trenching	2/1/2022	7/31/2022	5	129	
3	Building Construction	Building Construction	3/1/2022	12/31/2022	5	218	
4	Paving	Paving	7/1/2022	12/31/2022	5	131	
5	Architectural Coating	Architectural Coating	7/1/2022	12/31/2022	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.3

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 143,748; Non-Residential Outdoor: 47,916; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	209,715.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	232.00	76.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	46.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					0.9355	0.0000	0.9355	0.4492	0.0000	0.4492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6459	6.5727	5.8340	0.0111		0.2892	0.2892		0.2660	0.2660	0.0000	974.4940	974.4940	0.3152	0.0000	982.3733
Total	0.6459	6.5727	5.8340	0.0111	0.9355	0.2892	1.2247	0.4492	0.2660	0.7153	0.0000	974.4940	974.4940	0.3152	0.0000	982.3733

Unmitigated Construction Off-Site

[illegible]

Worker	0.0119	8.1700e-003	0.0838	2.7000e-004	0.0290	2.0000e-004	0.0292	7.7000e-003	1.8000e-004	7.8800e-003	0.0000	24.3753	24.3753	6.6000e-004	0.0000	24.3919
Total	0.1915	9.6771	1.5832	0.0122	0.0759	6.4700e-003	0.0824	0.0208	6.1800e-003	0.0269	0.0000	1,203.6301	1,203.6301	0.1881	0.0000	1,208.3332

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					0.3649	0.0000	0.3649	0.1752	0.0000	0.1752	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6459	6.5727	5.8340	0.0111		0.2892	0.2892		0.2660	0.2660	0.0000	974.4928	974.4928	0.3152	0.0000	982.3721
Total	0.6459	6.5727	5.8340	0.0111	0.3649	0.2892	0.6540	0.1752	0.2660	0.4412	0.0000	974.4928	974.4928	0.3152	0.0000	982.3721

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	0.1796	9.6689	1.4994	0.0119	0.0469	6.2700e-003	0.0532	0.0131	6.0000e-003	0.0191	0.0000	1,179.2548	1,179.2548	0.1875	0.0000	1,183.9413
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1700e-003	0.0838	2.7000e-004	0.0290	2.0000e-004	0.0292	7.7000e-003	1.8000e-004	7.8800e-003	0.0000	24.3753	24.3753	6.6000e-004	0.0000	24.3919
Total	0.1915	9.6771	1.5832	0.0122	0.0759	6.4700e-003	0.0824	0.0208	6.1800e-003	0.0269	0.0000	1,203.6301	1,203.6301	0.1881	0.0000	1,208.3332

3.3 Utilities - 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	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4892	194.4892	0.0629	0.0000	196.0617
Total	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4892	194.4892	0.0629	0.0000	196.0617

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114
Total	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114

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	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4889	194.4889	0.0629	0.0000	196.0615
Total	0.1229	1.1334	1.4936	2.2100e-003		0.0660	0.0660		0.0608	0.0608	0.0000	194.4889	194.4889	0.0629	0.0000	196.0615

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114
Total	4.2400e-003	2.9200e-003	0.0299	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8100e-003	0.0000	8.7055	8.7055	2.4000e-004	0.0000	8.7114

3.4 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	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3755	505.3755	0.1209	0.0000	508.3980
Total	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3755	505.3755	0.1209	0.0000	508.3980

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.8076	0.2159	2.2000e-003	0.0552	1.5600e-003	0.0568	0.0160	1.4900e-003	0.0174	0.0000	215.5100	215.5100	0.0156	0.0000	215.9011
Worker	0.0836	0.0574	0.5892	1.9000e-003	0.2037	1.4100e-003	0.2051	0.0541	1.3000e-003	0.0554	0.0000	171.4371	171.4371	4.6700e-003	0.0000	171.5539
Total	0.1075	0.8651	0.8052	4.1000e-003	0.2590	2.9700e-003	0.2619	0.0701	2.7900e-003	0.0729	0.0000	386.9471	386.9471	0.0203	0.0000	387.4550

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	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3749	505.3749	0.1209	0.0000	508.3974
Total	0.3721	3.4025	3.5757	5.8700e-003		0.1765	0.1765		0.1660	0.1660	0.0000	505.3749	505.3749	0.1209	0.0000	508.3974

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0239	0.8076	0.2159	2.2000e-003	0.0552	1.5600e-003	0.0568	0.0160	1.4900e-003	0.0174	0.0000	215.5100	215.5100	0.0156	0.0000	215.9011
Worker	0.0836	0.0574	0.5892	1.9000e-003	0.2037	1.4100e-003	0.2051	0.0541	1.3000e-003	0.0554	0.0000	171.4371	171.4371	4.6700e-003	0.0000	171.5539
Total	0.1075	0.8651	0.8052	4.1000e-003	0.2590	2.9700e-003	0.2619	0.0701	2.7900e-003	0.0729	0.0000	386.9471	386.9471	0.0203	0.0000	387.4550

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5919	316.5919	0.0971	0.0000	319.0199
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5919	316.5919	0.0971	0.0000	319.0199

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701

Total	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701

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	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5915	316.5915	0.0971	0.0000	319.0195
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1940	1.8418	2.3257	3.7000e-003		0.0924	0.0924		0.0856	0.0856	0.0000	316.5915	316.5915	0.0971	0.0000	319.0195

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701
Total	0.0121	8.2900e-003	0.0851	2.7000e-004	0.0294	2.0000e-004	0.0296	7.8200e-003	1.9000e-004	8.0000e-003	0.0000	24.7532	24.7532	6.7000e-004	0.0000	24.7701

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5021
Total	1.7827	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469
Total	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.7559					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5020
Total	1.7827	0.1845	0.2376	3.9000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	33.4476	33.4476	2.1800e-003	0.0000	33.5020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469
Total	9.9100e-003	6.8100e-003	0.0699	2.2000e-004	0.0242	1.7000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	20.3330	20.3330	5.5000e-004	0.0000	20.3469

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8316	0.0000	1.8316	0.4496	0.0000	0.4496	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.16	50.05	36.83	32,836	32,836
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.36	2,131.15	1,847.03	5,697,473	5,697,473

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934
Unmitigated	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0182	1.5670	8.0000e-005		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	2.5471	2.5471	2.5000e-003	0.0000	2.6096
Total	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0182	1.5670	8.0000e-005		8.5900e-003	8.5900e-003		8.5900e-003	8.5900e-003	0.0000	2.5471	2.5471	2.5000e-003	0.0000	2.6096
Total	15.0752	0.2755	17.8322	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5934

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.62126	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.62126	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0576	2.9583	0.0000	124.0155

Unmitigated	50.0576	2.9583	0.0000	124.0155

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0576	2.9583	0.0000	124.0155

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.19	0.0386	2.2800e-003	0.0000	0.0956
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0576	2.9583	0.0000	124.0155

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 5 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 5 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2020

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblGrading	AcresOfGrading	903.00	79.60
tblGrading	MaterialExported	0.00	842,031.00
tblGrading	MaterialImported	0.00	842,031.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	40.00	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	120.00	240.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	24.00	48.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.3331	21.3887	15.8845	0.0408	1.3534	0.5797	1.9331	0.5635	0.5380	1.1016	0.0000	3,732.4206	3,732.4206	0.8053	0.0000	3,752.5523
Maximum	3.3331	21.3887	15.8845	0.0408	1.3534	0.5797	1.9331	0.5635	0.5380	1.1016	0.0000	3,732.4206	3,732.4206	0.8053	0.0000	3,752.5523

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	3.3331	21.3887	15.8845	0.0408	0.7771	0.5797	1.3568	0.2872	0.5380	0.8253	0.0000	3,732.4181	3,732.4181	0.8053	0.0000	3,752.5497
Maximum	3.3331	21.3887	15.8845	0.0408	0.7771	0.5797	1.3568	0.2872	0.5380	0.8253	0.0000	3,732.4181	3,732.4181	0.8053	0.0000	3,752.5497

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	42.58	0.00	29.81	49.03	0.00	25.08	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1354	0.5017	17.9260	0.0310	1.8325	2.3074	4.1400	0.4498	2.3074	2.7573	271.3235	355.6038	626.9273	3.6121	0.0324	726.8831

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	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0616	0.0000	50.0616	2.9586	0.0000	124.0256
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.1354	0.5017	17.9260	0.0310	1.8325	2.3074	4.1400	0.4498	2.3074	2.7573	271.3235	355.6038	626.9273	3.6121	0.0324	726.8831

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2023	6/30/2023	5	129	
2	Utilities	Trenching	2/1/2023	7/31/2023	5	129	
3	Building Construction	Building Construction	3/1/2023	12/31/2023	5	218	
4	Paving	Paving	7/1/2023	12/31/2023	5	132	
5	Architectural Coating	Architectural Coating	7/1/2023	12/31/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	210,508.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	240.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	48.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9447	0.0000	0.9447	0.4530	0.0000	0.4530	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6445	6.2623	5.9448	0.0121		0.2701	0.2701		0.2485	0.2485	0.0000	1,062.1877	1,062.1877	0.3435	0.0000	1,070.7761
Total	0.6445	6.2623	5.9448	0.0121	0.9447	0.2701	1.2148	0.4530	0.2485	0.7015	0.0000	1,062.1877	1,062.1877	0.3435	0.0000	1,070.7761

Unmitigated Construction Off-Site

[illegible]

Worker	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	0.1449	8.3751	1.4287	0.0119	0.0765	3.8900e-003	0.0804	0.0210	3.7100e-003	0.0247	0.0000	1,182.8352	1,182.8352	0.1602	0.0000	1,186.8395

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					0.3684	0.0000	0.3684	0.1767	0.0000	0.1767	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6445	6.2623	5.9448	0.0121		0.2701	0.2701		0.2485	0.2485	0.0000	1,062.1865	1,062.1865	0.3435	0.0000	1,070.7748
Total	0.6445	6.2623	5.9448	0.0121	0.3684	0.2701	0.6385	0.1767	0.2485	0.4252	0.0000	1,062.1865	1,062.1865	0.3435	0.0000	1,070.7748

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	0.1335	8.3676	1.3504	0.0116	0.0473	3.6900e-003	0.0510	0.0132	3.5300e-003	0.0167	0.0000	1,159.2092	1,159.2092	0.1596	0.0000	1,163.1982
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	0.1449	8.3751	1.4287	0.0119	0.0765	3.8900e-003	0.0804	0.0210	3.7100e-003	0.0247	0.0000	1,182.8352	1,182.8352	0.1602	0.0000	1,186.8395

3.3 Utilities - 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	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5804	194.5804	0.0629	0.0000	196.1537
Total	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5804	194.5804	0.0629	0.0000	196.1537

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784
Total	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784

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	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5802	194.5802	0.0629	0.0000	196.1535
Total	0.1153	1.0355	1.4926	2.2200e-003		0.0595	0.0595		0.0548	0.0548	0.0000	194.5802	194.5802	0.0629	0.0000	196.1535

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784
Total	4.0200e-003	2.6600e-003	0.0278	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	8.3729	8.3729	2.2000e-004	0.0000	8.3784

3.4 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	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2413	503.2413	0.1195	0.0000	506.2296
Total	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2413	503.2413	0.1195	0.0000	506.2296

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0194	0.6648	0.2060	2.2500e-003	0.0579	8.0000e-004	0.0587	0.0167	7.6000e-004	0.0175	0.0000	220.1321	220.1321	0.0150	0.0000	220.5063
Worker	0.0816	0.0540	0.5627	1.8800e-003	0.2098	1.4200e-003	0.2112	0.0558	1.3100e-003	0.0571	0.0000	169.7955	169.7955	4.4000e-003	0.0000	169.9055
Total	0.1009	0.7188	0.7688	4.1300e-003	0.2677	2.2200e-003	0.2699	0.0725	2.0700e-003	0.0745	0.0000	389.9276	389.9276	0.0194	0.0000	390.4118

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	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2407	503.2407	0.1195	0.0000	506.2290
Total	0.3414	3.1202	3.5336	5.8500e-003		0.1519	0.1519		0.1429	0.1429	0.0000	503.2407	503.2407	0.1195	0.0000	506.2290

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0194	0.6648	0.2060	2.2500e-003	0.0579	8.0000e-004	0.0587	0.0167	7.6000e-004	0.0175	0.0000	220.1321	220.1321	0.0150	0.0000	220.5063
Worker	0.0816	0.0540	0.5627	1.8800e-003	0.2098	1.4200e-003	0.2112	0.0558	1.3100e-003	0.0571	0.0000	169.7955	169.7955	4.4000e-003	0.0000	169.9055
Total	0.1009	0.7188	0.7688	4.1300e-003	0.2677	2.2200e-003	0.2699	0.0725	2.0700e-003	0.0745	0.0000	389.9276	389.9276	0.0194	0.0000	390.4118

3.5 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	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2064	314.2064	0.0964	0.0000	316.6161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2064	314.2064	0.0964	0.0000	316.6161

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413

Total	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413

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	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2060	314.2060	0.0964	0.0000	316.6157
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1819	1.6909	2.3075	3.6800e-003		0.0824	0.0824		0.0764	0.0764	0.0000	314.2060	314.2060	0.0964	0.0000	316.6157

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413
Total	0.0114	7.5100e-003	0.0783	2.6000e-004	0.0292	2.0000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	23.6260	23.6260	6.1000e-004	0.0000	23.6413

3.6 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	1.7541					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.7791	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640
Total	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.7541					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.7791	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640
Total	9.7300e-003	6.4400e-003	0.0671	2.2000e-004	0.0250	1.7000e-004	0.0252	6.6500e-003	1.6000e-004	6.8000e-003	0.0000	20.2508	20.2508	5.2000e-004	0.0000	20.2640

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8325	0.0000	1.8325	0.4498	0.0000	0.4498	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930
Unmitigated	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0476	0.0181	1.5645	8.0000e-005		8.6000e-003	8.6000e-003		8.6000e-003	8.6000e-003	0.0000	2.5471	2.5471	2.4800e-003	0.0000	2.6092
Total	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0476	0.0181	1.5645	8.0000e-005		8.6000e-003	8.6000e-003		8.6000e-003	8.6000e-003	0.0000	2.5471	2.5471	2.4800e-003	0.0000	2.6092
Total	15.1089	0.2754	17.8297	0.0296		2.2891	2.2891		2.2891	2.2891	216.9211	93.5206	310.4418	0.2027	0.0171	320.5930

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.85956	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0616	2.9586	0.0000	124.0256

Unmitigated	50.0616	2.9586	0.0000	124.0256

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0616	2.9586	0.0000	124.0256

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.21	0.0426	2.5200e-003	0.0000	0.1056
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0616	2.9586	0.0000	124.0256

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 5 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 5 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.40	Acre	2.40	104,544.00	0
Single Family Housing	210.00	Dwelling Unit	58.80	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2020

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	52272	0
tblAreaCoating	Area_Nonresidential_Interior	156816	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	LHD2	5.5580e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MCY	6.1810e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MH	1.2710e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	OBUS	1.9020e-003	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	SBUS	7.4500e-004	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblFleetMix	UBUS	2.0240e-003	0.00
tblGrading	AcresOfGrading	903.00	79.60
tblGrading	MaterialExported	0.00	842,031.00
tblGrading	MaterialImported	0.00	842,031.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.80
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	40.00	80.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	120.00	240.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	24.00	48.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	36.3888	277.9371	174.4035	0.5065	18.4128	6.5464	24.9592	8.0199	6.0541	14.0740	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316
Maximum	36.3888	277.9371	174.4035	0.5065	18.4128	6.5464	24.9592	8.0199	6.0541	14.0740	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	36.3888	277.9371	174.4035	0.5065	9.5477	6.5464	16.0940	3.7689	6.0541	9.8230	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316
Maximum	36.3888	277.9371	174.4035	0.5065	9.5477	6.5464	16.0940	3.7689	6.0541	9.8230	0.0000	51,684.3163	51,684.3163	10.8886	0.0000	51,956.5316

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	48.15	0.00	35.52	53.01	0.00	30.20	0.00	0.00	0.00	0.00	0.00	0.00

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	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Total	332.3838	7.7173	414.6231	0.7276	11.0032	55.8187	66.8219	2.7008	55.8187	58.5195	5,832.0635	4,060.0775	9,892.1409	5.4428	0.4878	10,173.5624

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	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Total	332.3838	7.7173	414.6231	0.7276	11.0032	55.8187	66.8219	2.7008	55.8187	58.5195	5,832.0635	4,060.0775	9,892.1409	5.4428	0.4878	10,173.5624

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2023	6/30/2023	5	129	
2	Utilities	Trenching	2/1/2023	7/31/2023	5	129	
3	Building Construction	Building Construction	3/1/2023	12/31/2023	5	218	
4	Paving	Paving	7/1/2023	12/31/2023	5	132	
5	Architectural Coating	Architectural Coating	7/1/2023	12/31/2023	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 156,816; Non-Residential Outdoor: 52,272; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	210,508.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	240.00	80.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	48.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5330	0.0000	14.5330	6.9689	0.0000	6.9689			0.0000			0.0000
Off-Road	9.9159	96.3426	91.4578	0.1860		4.1559	4.1559		3.8234	3.8234		18,013.2546	18,013.2546	5.8259		18,158.9009
Total	9.9159	96.3426	91.4578	0.1860	14.5330	4.1559	18.6889	6.9689	3.8234	10.7923		18,013.2546	18,013.2546	5.8259		18,158.9009

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9519	130.2624	18.3457	0.1876	0.7424	0.0501	0.7925	0.2066	0.0479	0.2545		20,621.4427	20,621.4427	2.5690		20,685.6671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	2.1253	130.3672	19.6287	0.1919	1.2024	0.0531	1.2555	0.3286	0.0507	0.3793		21,044.0002	21,044.0002	2.5799		21,108.4977

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6679	0.0000	5.6679	2.7179	0.0000	2.7179			0.0000			0.0000
Off-Road	9.9159	96.3426	91.4578	0.1860		4.1559	4.1559		3.8234	3.8234	0.0000	18,013.2546	18,013.2546	5.8259		18,158.9008
Total	9.9159	96.3426	91.4578	0.1860	5.6679	4.1559	9.8238	2.7179	3.8234	6.5413	0.0000	18,013.2546	18,013.2546	5.8259		18,158.9008

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9519	130.2624	18.3457	0.1876	0.7424	0.0501	0.7925	0.2066	0.0479	0.2545		20,621.4427	20,621.4427	2.5690		20,685.6671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	2.1253	130.3672	19.6287	0.1919	1.2024	0.0531	1.2555	0.3286	0.0507	0.3793		21,044.0002	21,044.0002	2.5799		21,108.4977

3.3 Utilities - 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	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488		3,325.3984	3,325.3984	1.0755		3,352.2859
Total	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488		3,325.3984	3,325.3984	1.0755		3,352.2859

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109
Total	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488	0.0000	3,325.3984	3,325.3984	1.0755		3,352.2859
Total	1.7877	16.0548	23.1407	0.0344		0.9226	0.9226		0.8488	0.8488	0.0000	3,325.3984	3,325.3984	1.0755		3,352.2859

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109
Total	0.0619	0.0374	0.4582	1.5100e-003	0.1643	1.0900e-003	0.1654	0.0436	1.0000e-003	0.0446		150.9134	150.9134	3.9000e-003		151.0109

3.4 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	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113		5,089.2525	5,089.2525	1.2088		5,119.4736
Total	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113		5,089.2525	5,089.2525	1.2088		5,119.4736

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1735	6.0607	1.8011	0.0208	0.5416	7.1400e-003	0.5487	0.1559	6.8300e-003	0.1627		2,250.5363	2,250.5363	0.1478		2,254.2313
Worker	0.7431	0.4491	5.4986	0.0182	1.9715	0.0131	1.9846	0.5230	0.0120	0.5350		1,810.9610	1,810.9610	0.0468		1,812.1313
Total	0.9165	6.5098	7.2997	0.0390	2.5131	0.0202	2.5333	0.6789	0.0189	0.6977		4,061.4973	4,061.4973	0.1946		4,066.3626

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	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113	0.0000	5,089.2525	5,089.2525	1.2088		5,119.4736
Total	3.1322	28.6253	32.4185	0.0537		1.3934	1.3934		1.3113	1.3113	0.0000	5,089.2525	5,089.2525	1.2088		5,119.4736

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1735	6.0607	1.8011	0.0208	0.5416	7.1400e-003	0.5487	0.1559	6.8300e-003	0.1627		2,250.5363	2,250.5363	0.1478		2,254.2313
Worker	0.7431	0.4491	5.4986	0.0182	1.9715	0.0131	1.9846	0.5230	0.0120	0.5350		1,810.9610	1,810.9610	0.0468		1,812.1313

Total	0.9165	6.5098	7.2997	0.0390	2.5131	0.0202	2.5333	0.6789	0.0189	0.6977		4,061.4973	4,061.4973	0.1946		4,066.3626

3.5 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	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759		5,328.5113	5,328.5113	1.6346		5,369.3763
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759		5,328.5113	5,328.5113	1.6346		5,369.3763

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306

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	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759	0.0000	5,328.5113	5,328.5113	1.6346		5,369.3763
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.7984	26.0133	35.4994	0.0566		1.2682	1.2682		1.1759	1.1759	0.0000	5,328.5113	5,328.5113	1.6346		5,369.3763

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306
Total	0.1734	0.1048	1.2830	4.2400e-003	0.4600	3.0500e-003	0.4631	0.1220	2.8100e-003	0.1248		422.5576	422.5576	0.0109		422.8306

3.6 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	26.9868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	27.3701	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263
Total	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263

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	26.9868					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	27.3701	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263
Total	0.1486	0.0898	1.0997	3.6300e-003	0.3943	2.6100e-003	0.3969	0.1046	2.4100e-003	0.1070		362.1922	362.1922	9.3600e-003		362.4263

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	11.0032	0.0000	11.0032	2.7008	0.0000	2.7008		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.54	54.60	40.18	35,822	35,822
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,003.74	2,135.70	1,850.38	5,700,458	5,700,458

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568
Unmitigated	332.2387	6.4773	414.0954	0.7197		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.3264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5294	0.2011	17.3831	9.1000e-004		0.0956	0.0956		0.0956	0.0956		31.1965	31.1965	0.0304		31.9570
Total	332.2387	6.4773	414.0954	0.7196		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.3264					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5294	0.2011	17.3831	9.1000e-004		0.0956	0.0956		0.0956	0.0956		31.1965	31.1965	0.0304		31.9570
Total	332.2387	6.4773	414.0954	0.7196		55.7184	55.7184		55.7184	55.7184	5,832.0635	2,477.0789	8,309.1423	5.4125	0.4587	8,581.1568

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 6 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 6 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	794.00	Student	10.00	60,000.00	0
City Park	10.30	Acre	10.30	448,668.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	254334	0

tblAreaCoating	Area_Nonresidential_Interior	763002	0
tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	152.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	130.00
tblConstructionPhase	NumDays	110.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00

tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblGrading	AcresOfGrading	910.00	102.80
tblGrading	MaterialExported	0.00	1,087,447.00
tblGrading	MaterialImported	0.00	1,087,447.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LandUseSquareFeet	66,381.08	60,000.00
tblLandUse	LotAcreage	1.52	10.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00

tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	106.00	212.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	289.00	578.00
tblTripsAndVMT	WorkerTripNumber	58.00	116.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	5.0827	23.7831	17.1651	0.0498	1.8604	0.5293	2.3897	0.6949	0.4914	1.1863	0.0000	4,601.4755	4,601.4755	0.8484	0.0000	4,622.6853
Maximum	5.0827	23.7831	17.1651	0.0498	1.8604	0.5293	2.3897	0.6949	0.4914	1.1863	0.0000	4,601.4755	4,601.4755	0.8484	0.0000	4,622.6853

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	5.0827	23.7831	17.1651	0.0498	1.2564	0.5293	1.7856	0.4147	0.4914	0.9061	0.0000	4,601.4730	4,601.4730	0.8484	0.0000	4,622.6828
Maximum	5.0827	23.7831	17.1651	0.0498	1.2564	0.5293	1.7856	0.4147	0.4914	0.9061	0.0000	4,601.4730	4,601.4730	0.8484	0.0000	4,622.6828

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	32.47	0.00	25.28	40.32	0.00	23.62	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Energy	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
Mobile	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	79.6151	0.0000	79.6151	4.7051	0.0000	197.2430
Water						0.0000	0.0000		0.0000	0.0000	4.9514	0.0000	4.9514	0.5086	0.0120	21.2439
Total	16.7160	0.5191	17.9462	0.0311	2.3890	2.3088	4.6978	0.5864	2.3088	2.8952	301.4877	374.5730	676.0606	5.4218	0.0342	821.8029

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	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Energy	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
Mobile	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	79.6151	0.0000	79.6151	4.7051	0.0000	197.2430
Water						0.0000	0.0000		0.0000	0.0000	4.9514	0.0000	4.9514	0.5086	0.0120	21.2439
Total	16.7160	0.5191	17.9462	0.0311	2.3890	2.3088	4.6978	0.5864	2.3088	2.8952	301.4877	374.5730	676.0606	5.4218	0.0342	821.8029

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	6/30/2024	5	130	
2	Utilities	Trenching	2/1/2024	7/31/2024	5	130	
3	Building Construction	Building Construction	3/1/2024	12/31/2024	5	219	
4	Architectural Coating	Architectural Coating	5/1/2024	12/31/2024	5	152	
5	Paving	Paving	7/1/2024	12/31/2024	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.8

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 763,002; Non-Residential Outdoor: 254,334; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Category	tons/yr										MT/yr					
Fugitive Dust					0.9902	0.0000	0.9902	0.4594	0.0000	0.4594	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5860	5.5806	5.6087	0.0112		0.2415	0.2415		0.2222	0.2222	0.0000	981.8115	981.8115	0.3175	0.0000	989.7499
Total	0.5860	5.5806	5.6087	0.0112	0.9902	0.2415	1.2317	0.4594	0.2222	0.6815	0.0000	981.8115	981.8115	0.3175	0.0000	989.7499

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	0.1652	10.5785	1.6954	0.0147	0.0610	4.3100e-003	0.0653	0.0170	4.1200e-003	0.0211	0.0000	1,466.8390	1,466.8390	0.1964	0.0000	1,471.7482
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0108	6.8900e-003	0.0731	2.5000e-004	0.0292	1.9000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	22.6959	22.6959	5.6000e-004	0.0000	22.7099
Total	0.1760	10.5854	1.7685	0.0149	0.0901	4.5000e-003	0.0946	0.0248	4.3000e-003	0.0291	0.0000	1,489.5348	1,489.5348	0.1969	0.0000	1,494.4581

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					0.3862	0.0000	0.3862	0.1792	0.0000	0.1792	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5860	5.5806	5.6087	0.0112		0.2415	0.2415		0.2222	0.2222	0.0000	981.8103	981.8103	0.3175	0.0000	989.7487

Total	0.5860	5.5806	5.6087	0.0112	0.3862	0.2415	0.6277	0.1792	0.2222	0.4013	0.0000	981.8103	981.8103	0.3175	0.0000	989.7487

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	0.1652	10.5785	1.6954	0.0147	0.0610	4.3100e-003	0.0653	0.0170	4.1200e-003	0.0211	0.0000	1,466.8390	1,466.8390	0.1964	0.0000	1,471.7482
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0108	6.8900e-003	0.0731	2.5000e-004	0.0292	1.9000e-004	0.0294	7.7600e-003	1.8000e-004	7.9400e-003	0.0000	22.6959	22.6959	5.6000e-004	0.0000	22.7099
Total	0.1760	10.5854	1.7685	0.0149	0.0901	4.5000e-003	0.0946	0.0248	4.3000e-003	0.0291	0.0000	1,489.5348	1,489.5348	0.1969	0.0000	1,494.4581

3.3 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1450	196.1450	0.0634	0.0000	197.7310
Total	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1450	196.1450	0.0634	0.0000	197.7310

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107
Total	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107

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	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1448	196.1448	0.0634	0.0000	197.7307
Total	0.1121	0.9835	1.5067	2.2300e-003		0.0562	0.0562		0.0517	0.0517	0.0000	196.1448	196.1448	0.0634	0.0000	197.7307

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107
Total	3.8500e-003	2.4600e-003	0.0261	9.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	8.1057	8.1057	2.0000e-004	0.0000	8.1107

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3380	503.3380	0.1188	0.0000	506.3091
Total	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3380	503.3380	0.1188	0.0000	506.3091

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0495	1.7369	0.5287	5.9100e-003	0.1534	2.0600e-003	0.1554	0.0443	1.9600e-003	0.0463	0.0000	579.6424	579.6424	0.0392	0.0000	580.6218
Worker	0.1868	0.1193	1.2656	4.3400e-003	0.5052	3.3700e-003	0.5086	0.1343	3.1000e-003	0.1374	0.0000	392.8254	392.8254	9.7300e-003	0.0000	393.0687
Total	0.2363	1.8562	1.7943	0.0103	0.6586	5.4300e-003	0.6640	0.1785	5.0600e-003	0.1836	0.0000	972.4678	972.4678	0.0489	0.0000	973.6906

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	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3374	503.3374	0.1188	0.0000	506.3085
Total	0.3194	2.9163	3.5170	5.8500e-003		0.1331	0.1331		0.1252	0.1252	0.0000	503.3374	503.3374	0.1188	0.0000	506.3085

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0495	1.7369	0.5287	5.9100e-003	0.1534	2.0600e-003	0.1554	0.0443	1.9600e-003	0.0463	0.0000	579.6424	579.6424	0.0392	0.0000	580.6218
Worker	0.1868	0.1193	1.2656	4.3400e-003	0.5052	3.3700e-003	0.5086	0.1343	3.1000e-003	0.1374	0.0000	392.8254	392.8254	9.7300e-003	0.0000	393.0687
Total	0.2363	1.8562	1.7943	0.0103	0.6586	5.4300e-003	0.6640	0.1785	5.0600e-003	0.1836	0.0000	972.4678	972.4678	0.0489	0.0000	973.6906

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

Off-Road	0.0316	0.2133	0.3168	5.2000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	44.6819	44.6819	2.5200e-003	0.0000	44.7448
Total	3.4301	0.2133	0.3168	5.2000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	44.6819	44.6819	2.5200e-003	0.0000	44.7448

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0301	0.0192	0.2039	7.0000e-004	0.0814	5.4000e-004	0.0819	0.0216	5.0000e-004	0.0221	0.0000	63.2865	63.2865	1.5700e-003	0.0000	63.3257
Total	0.0301	0.0192	0.2039	7.0000e-004	0.0814	5.4000e-004	0.0819	0.0216	5.0000e-004	0.0221	0.0000	63.2865	63.2865	1.5700e-003	0.0000	63.3257

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0592	319.0592	0.0979	0.0000	321.5061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0592	319.0592	0.0979	0.0000	321.5061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593
Total	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593

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	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0588	319.0588	0.0979	0.0000	321.5057
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1779	1.6191	2.3489	3.7300e-003		0.0771	0.0771		0.0715	0.0715	0.0000	319.0588	319.0588	0.0979	0.0000	321.5057

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593
Total	0.0110	7.0000e-003	0.0743	2.5000e-004	0.0296	2.0000e-004	0.0298	7.8800e-003	1.8000e-004	8.0600e-003	0.0000	23.0450	23.0450	5.7000e-004	0.0000	23.0593

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	2.3890	0.0000	2.3890	0.5864	0.0000	0.5864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	19.47	234.33	172.42	153,734	153,734
Elementary School	1,024.26	0.00	0.00	1,613,165	1,613,165
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	3,042.93	2,315.43	1,982.62	7,431,536	7,431,536

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Elementary School	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081
NaturalGas Unmitigated	0.0284	0.2437	0.1109	1.5500e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3900e-003	5.1500e-003	282.7081

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	355200	1.9200e-003	0.0174	0.0146	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9548	18.9548	3.6000e-004	3.5000e-004	19.0675
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0284	0.2437	0.1109	1.5400e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3800e-003	5.1500e-003	282.7081

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	355200	1.9200e-003	0.0174	0.0146	1.0000e-004		1.3200e-003	1.3200e-003		1.3200e-003	1.3200e-003	0.0000	18.9548	18.9548	3.6000e-004	3.5000e-004	19.0675
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0284	0.2437	0.1109	1.5400e-003		0.0196	0.0196		0.0196	0.0196	0.0000	281.0380	281.0380	5.3800e-003	5.1500e-003	282.7081

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079
Unmitigated	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0181	1.5701	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5614	2.5614	2.5100e-003	0.0000	2.6241
Total	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079

Mitigated

[illegible]

Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0480	0.0181	1.5701	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5614	2.5614	2.5100e-003	0.0000	2.6241
Total	16.6876	0.2754	17.8353	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5350	310.4561	0.2027	0.0171	320.6079

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.9514	0.5086	0.0120	21.2439
Unmitigated	4.9514	0.5086	0.0120	21.2439

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.2723	0.0000	0.0000	0.0000	0.0000
Elementary School	1.92485 / 4.94961	0.6107	0.0627	1.4800e-003	2.6200
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239

Total		4.9515	0.5086	0.0120	21.2439

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 12.2723	0.0000	0.0000	0.0000	0.0000
Elementary School	1.92485 / 4.94961	0.6107	0.0627	1.4800e-003	2.6200
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.9515	0.5086	0.0120	21.2439

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	79.6151	4.7051	0.0000	197.2430
Unmitigated	79.6151	4.7051	0.0000	197.2430

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Elementary School	144.91	29.4154	1.7384	0.0000	72.8755
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		79.6151	4.7051	0.0000	197.2430

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.89	0.1807	0.0107	0.0000	0.4476
Elementary School	144.91	29.4154	1.7384	0.0000	72.8755
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		79.6151	4.7051	0.0000	197.2430

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 6 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 6 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	794.00	Student	10.00	60,000.00	0
City Park	10.30	Acre	10.30	448,668.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2021
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	254334	0

tblAreaCoating	Area_Nonresidential_Interior	763002	0
tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	152.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	130.00
tblConstructionPhase	NumDays	110.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDA	0.59	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00
tblFleetMix	LHD2	5.5130e-003	0.00

tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MCY	6.0900e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MH	1.1930e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	OBUS	1.9120e-003	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	SBUS	7.4800e-004	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblFleetMix	UBUS	1.9720e-003	0.00
tblGrading	AcresOfGrading	910.00	102.80
tblGrading	MaterialExported	0.00	1,087,447.00
tblGrading	MaterialImported	0.00	1,087,447.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LandUseSquareFeet	66,381.08	60,000.00
tblLandUse	LotAcreage	1.52	10.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00

tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	106.00	212.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	289.00	578.00
tblTripsAndVMT	WorkerTripNumber	58.00	116.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	57.9935	311.9919	189.5206	0.6137	23.9509	6.0413	29.9922	9.4239	5.5959	15.0198	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130
Maximum	57.9935	311.9919	189.5206	0.6137	23.9509	6.0413	29.9922	9.4239	5.5959	15.0198	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130

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					
2024	57.9935	311.9919	189.5206	0.6137	14.6583	6.0413	20.6997	5.1131	5.5959	10.7090	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130
Maximum	57.9935	311.9919	189.5206	0.6137	14.6583	6.0413	20.6997	5.1131	5.5959	10.7090	0.0000	63,228.6585	63,228.6585	11.3822	0.0000	63,513.2130

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	38.80	0.00	30.98	45.74	0.00	28.70	0.00	0.00	0.00	0.00	0.00	0.00

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	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Energy	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
Mobile	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000
Total	341.0470	7.8128	414.7655	0.7281	15.8015	55.8264	71.6279	3.8786	55.8264	59.7049	5,832.0635	4,174.7413	10,006.8048	5.4453	0.4899	10,288.9135

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	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Energy	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
Mobile	0.0000	0.0000	0.0000	0.0000	15.8015	0.0000	15.8015	3.8786	0.0000	3.8786		0.0000	0.0000	0.0000		0.0000
Total	341.0470	7.8128	414.7655	0.7281	15.8015	55.8264	71.6279	3.8786	55.8264	59.7049	5,832.0635	4,174.7413	10,006.8048	5.4453	0.4899	10,288.9135

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2024	6/30/2024	5	130	
2	Utilities	Trenching	2/1/2024	7/31/2024	5	130	
3	Building Construction	Building Construction	3/1/2024	12/31/2024	5	219	
4	Architectural Coating	Architectural Coating	5/1/2024	12/31/2024	5	152	
5	Paving	Paving	7/1/2024	12/31/2024	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 102.8

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 763,002; Non-Residential Outdoor: 254,334; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48
Paving	Cement and Mortar Mixers	8	8.00	9	0.56

Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	271,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	578.00	212.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	116.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area
 Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.2337	0.0000	15.2337	7.0670	0.0000	7.0670			0.0000			0.0000
Off-Road	9.0148	85.8555	86.2882	0.1720		3.7155	3.7155		3.4183	3.4183		16,650.1827	16,650.1827	5.3850		16,784.8079
Total	9.0148	85.8555	86.2882	0.1720	15.2337	3.7155	18.9492	7.0670	3.4183	10.4853		16,650.1827	16,650.1827	5.3850		16,784.8079

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	2.4144	164.6543	23.0485	0.2369	0.9567	0.0586	1.0153	0.2660	0.0561	0.3221		26,092.1889	26,092.1889	3.1626		26,171.2533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598
Total	2.5791	164.7504	24.2480	0.2410	1.4167	0.0616	1.4783	0.3880	0.0588	0.4468		26,498.0977	26,498.0977	3.1726		26,577.4131

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9411	0.0000	5.9411	2.7561	0.0000	2.7561			0.0000			0.0000
Off-Road	9.0148	85.8555	86.2882	0.1720		3.7155	3.7155		3.4183	3.4183	0.0000	16,650.1827	16,650.1827	5.3850		16,784.8078
Total	9.0148	85.8555	86.2882	0.1720	5.9411	3.7155	9.6567	2.7561	3.4183	6.1744	0.0000	16,650.1827	16,650.1827	5.3850		16,784.8078

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	2.4144	164.6543	23.0485	0.2369	0.9567	0.0586	1.0153	0.2660	0.0561	0.3221		26,092.1889	26,092.1889	3.1626	26,171.2533
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100	406.1598
Total	2.5791	164.7504	24.2480	0.2410	1.4167	0.0616	1.4783	0.3880	0.0588	0.4468		26,498.0977	26,498.0977	3.1726	26,577.4131

3.3 Utilities - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955		3,326.3523	3,326.3523	1.0758		3,353.2475
Total	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955		3,326.3523	3,326.3523	1.0758		3,353.2475

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571

Total	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955	0.0000	3,326.3523	3,326.3523	1.0758		3,353.2475
Total	1.7246	15.1308	23.1793	0.0344		0.8647	0.8647		0.7955	0.7955	0.0000	3,326.3523	3,326.3523	1.0758		3,353.2475

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571
Total	0.0588	0.0343	0.4284	1.4500e-003	0.1643	1.0700e-003	0.1654	0.0436	9.8000e-004	0.0446		144.9674	144.9674	3.5900e-003		145.0571

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487		5,090.2309	5,090.2309	1.2019		5,120.2772
Total	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487		5,090.2309	5,090.2309	1.2019		5,120.2772

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4434	15.8370	4.6240	0.0548	1.4351	0.0185	1.4536	0.4131	0.0177	0.4308		5,925.5620	5,925.5620	0.3872		5,935.2411
Worker	1.6998	0.9923	12.3813	0.0420	4.7481	0.0309	4.7790	1.2594	0.0284	1.2879		4,189.5585	4,189.5585	0.1036		4,192.1496
Total	2.1432	16.8293	17.0052	0.0968	6.1833	0.0493	6.2326	1.6726	0.0461	1.7186		10,115.1205	10,115.1205	0.4908		10,127.3907

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	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487	0.0000	5,090.2309	5,090.2309	1.2019		5,120.2772
Total	2.9306	26.7548	32.2664	0.0537		1.2211	1.2211		1.1487	1.1487	0.0000	5,090.2309	5,090.2309	1.2019		5,120.2772

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4434	15.8370	4.6240	0.0548	1.4351	0.0185	1.4536	0.4131	0.0177	0.4308		5,925.5620	5,925.5620	0.3872		5,935.2411
Worker	1.6998	0.9923	12.3813	0.0420	4.7481	0.0309	4.7790	1.2594	0.0284	1.2879		4,189.5585	4,189.5585	0.1036		4,192.1496
Total	2.1432	16.8293	17.0052	0.0968	6.1833	0.0493	6.2326	1.6726	0.0461	1.7186		10,115.1205	10,115.1205	0.4908		10,127.3907

3.5 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.8398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218		562.8961	562.8961	0.0317		563.6885
Total	39.2013	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218		562.8961	562.8961	0.0317		563.6885

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311
Total	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311

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	38.8398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218	0.0000	562.8961	562.8961	0.0317		563.6885
Total	39.2013	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218	0.0000	562.8961	562.8961	0.0317		563.6885

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311
Total	0.3411	0.1991	2.4848	8.4300e-003	0.9529	6.2000e-003	0.9591	0.2528	5.7000e-003	0.2585		840.8111	840.8111	0.0208		841.3311

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833		5,328.8264	5,328.8264	1.6347		5,369.6940
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833		5,328.8264	5,328.8264	1.6347		5,369.6940

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598

Total	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598

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	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833	0.0000	5,328.8264	5,328.8264	1.6347		5,369.6940
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.6960	24.5325	35.5888	0.0566		1.1676	1.1676		1.0833	1.0833	0.0000	5,328.8264	5,328.8264	1.6347		5,369.6940

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598
Total	0.1647	0.0961	1.1996	4.0700e-003	0.4600	2.9900e-003	0.4630	0.1220	2.7500e-003	0.1248		405.9088	405.9088	0.0100		406.1598

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743
NaturalGas Unmitigated	0.1556	1.3354	0.6078	8.4900e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5743

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	973.151	0.0105	0.0954	0.0801	5.7000e-004		7.2500e-003	7.2500e-003		7.2500e-003	7.2500e-003		114.4883	114.4883	2.1900e-003	2.1000e-003	115.1687
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1556	1.3354	0.6078	8.4800e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5742

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	0.973151	0.0105	0.0954	0.0801	5.7000e-004		7.2500e-003	7.2500e-003		7.2500e-003	7.2500e-003		114.4883	114.4883	2.1900e-003	2.1000e-003	115.1687
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1556	1.3354	0.6078	8.4800e-003		0.1075	0.1075		0.1075	0.1075		1,697.4869	1,697.4869	0.0325	0.0311	1,707.5742

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392
Unmitigated	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.9747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5338	0.2012	17.4454	9.2000e-004		0.0960	0.0960		0.0960	0.0960		31.3720	31.3720	0.0307		32.1395
Total	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.9747					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5338	0.2012	17.4454	9.2000e-004		0.0960	0.0960		0.0960	0.0960		31.3720	31.3720	0.0307		32.1395
Total	340.8914	6.4774	414.1577	0.7197		55.7189	55.7189		55.7189	55.7189	5,832.0635	2,477.2544	8,309.3178	5.4127	0.4587	8,581.3392

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 7 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 7 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.90	Acre	2.90	126,324.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	63162	0
tblAreaCoating	Area_Nonresidential_Interior	189486	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	220.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	AcresOfGrading	903.00	80.20
tblGrading	MaterialExported	0.00	848,378.00
tblGrading	MaterialImported	0.00	848,378.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	43.00	86.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	129.00	258.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	3.2115	18.8170	15.0632	0.0396	1.3704	0.4438	1.8142	0.5664	0.4120	0.9784	0.0000	3,629.7863	3,629.7863	0.7645	0.0000	3,648.8978
Maximum	3.2115	18.8170	15.0632	0.0396	1.3704	0.4438	1.8142	0.5664	0.4120	0.9784	0.0000	3,629.7863	3,629.7863	0.7645	0.0000	3,648.8978

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					
2025	3.2115	18.8170	15.0631	0.0396	0.7978	0.4438	1.2416	0.2922	0.4120	0.7041	0.0000	3,629.7839	3,629.7839	0.7645	0.0000	3,648.8954
Maximum	3.2115	18.8170	15.0631	0.0396	0.7978	0.4438	1.2416	0.2922	0.4120	0.7041	0.0000	3,629.7839	3,629.7839	0.7645	0.0000	3,648.8954

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	41.78	0.00	31.56	48.42	0.00	28.03	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0698	0.0000	50.0698	2.9590	0.0000	124.0457
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.2200	0.5016	17.9225	0.0310	1.8349	2.3075	4.1424	0.4504	2.3075	2.7579	271.3317	355.6038	626.9355	3.6125	0.0324	726.9026

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	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0698	0.0000	50.0698	2.9590	0.0000	124.0457
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	15.2200	0.5016	17.9225	0.0310	1.8349	2.3075	4.1424	0.4504	2.3075	2.7579	271.3317	355.6038	626.9355	3.6125	0.0324	726.9026

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Utilities	Trenching	2/1/2025	7/31/2025	5	130	
3	Building Construction	Building Construction	3/1/2025	12/31/2025	5	220	
4	Paving	Paving	7/1/2025	12/31/2025	5	132	
5	Architectural Coating	Architectural Coating	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 80.2

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 189,486; Non-Residential Outdoor: 63,162; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	212,095.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	258.00	86.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9386	0.0000	0.9386	0.4497	0.0000	0.4497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9896	973.9896	0.3150	0.0000	981.8644
Total	0.5198	4.6817	5.2129	0.0111	0.9386	0.1989	1.1375	0.4497	0.1830	0.6327	0.0000	973.9896	973.9896	0.3150	0.0000	981.8644

Unmitigated Construction Off-Site

[illegible]

Worker	0.0102	6.3100e-003	0.0677	2.4000e-004	0.0290	1.9000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	21.6108	21.6108	5.1000e-004	0.0000	21.6237
Total	0.1355	8.1536	1.3854	0.0115	0.0765	3.2000e-003	0.0797	0.0210	3.0500e-003	0.0240	0.0000	1,152.5643	1,152.5643	0.1477	0.0000	1,156.2563

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					0.3661	0.0000	0.3661	0.1754	0.0000	0.1754	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637
Total	0.5198	4.6817	5.2129	0.0111	0.3661	0.1989	0.5650	0.1754	0.1830	0.3584	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637

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	0.1252	8.1473	1.3177	0.0113	0.0476	3.0100e-003	0.0506	0.0133	2.8800e-003	0.0161	0.0000	1,130.9535	1,130.9535	0.1472	0.0000	1,134.6326
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0102	6.3100e-003	0.0677	2.4000e-004	0.0290	1.9000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	21.6108	21.6108	5.1000e-004	0.0000	21.6237
Total	0.1355	8.1536	1.3854	0.0115	0.0765	3.2000e-003	0.0797	0.0210	3.0500e-003	0.0240	0.0000	1,152.5643	1,152.5643	0.1477	0.0000	1,156.2563

3.3 Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840
Total	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228
Total	3.6500e-003	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838
Total	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228
Total	3.6500e-003	2.2500e-003	0.0242	9.0000e-005	0.0103	7.0000e-005	0.0104	2.7500e-003	6.0000e-005	2.8100e-003	0.0000	7.7182	7.7182	1.8000e-004	0.0000	7.7228

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0195	0.6943	0.2101	2.3800e-003	0.0622	8.1000e-004	0.0630	0.0180	7.7000e-004	0.0187	0.0000	233.7075	233.7075	0.0157	0.0000	234.1006
Worker	0.0796	0.0491	0.5273	1.8600e-003	0.2255	1.4800e-003	0.2270	0.0599	1.3600e-003	0.0613	0.0000	168.2557	168.2557	4.0100e-003	0.0000	168.3559
Total	0.0991	0.7434	0.7374	4.2400e-003	0.2877	2.2900e-003	0.2900	0.0779	2.1300e-003	0.0800	0.0000	401.9632	401.9632	0.0197	0.0000	402.4565

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0195	0.6943	0.2101	2.3800e-003	0.0622	8.1000e-004	0.0630	0.0180	7.7000e-004	0.0187	0.0000	233.7075	233.7075	0.0157	0.0000	234.1006
Worker	0.0796	0.0491	0.5273	1.8600e-003	0.2255	1.4800e-003	0.2270	0.0599	1.3600e-003	0.0613	0.0000	168.2557	168.2557	4.0100e-003	0.0000	168.3559
Total	0.0991	0.7434	0.7374	4.2400e-003	0.2877	2.2900e-003	0.2900	0.0779	2.1300e-003	0.0800	0.0000	401.9632	401.9632	0.0197	0.0000	402.4565

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266

Total	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266
Total	0.0105	6.4500e-003	0.0693	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.8000e-004	8.0500e-003	0.0000	22.1134	22.1134	5.3000e-004	0.0000	22.1266

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	1.8668	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461
Total	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.8442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	1.8668	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461
Total	9.7200e-003	5.9900e-003	0.0644	2.3000e-004	0.0275	1.8000e-004	0.0277	7.3100e-003	1.7000e-004	7.4800e-003	0.0000	20.5339	20.5339	4.9000e-004	0.0000	20.5461

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8349	0.0000	1.8349	0.4504	0.0000	0.4504	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5.48	65.98	48.55	43,284	43,284
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,004.68	2,147.08	1,858.75	5,707,921	5,707,921

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924
Unmitigated	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0472	0.0180	1.5610	8.0000e-005		8.6200e-003	8.6200e-003		8.6200e-003	8.6200e-003	0.0000	2.5471	2.5471	2.4600e-003	0.0000	2.6085
Total	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0472	0.0180	1.5610	8.0000e-005		8.6200e-003	8.6200e-003		8.6200e-003	8.6200e-003	0.0000	2.5471	2.5471	2.4600e-003	0.0000	2.6085
Total	15.1935	0.2753	17.8262	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5207	310.4418	0.2026	0.0171	320.5924

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 3.4553	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.4553	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0698	2.9590	0.0000	124.0457

Unmitigated	50.0698	2.9590	0.0000	124.0457

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.25	0.0508	3.0000e-003	0.0000	0.1257
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0698	2.9590	0.0000	124.0457

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.25	0.0508	3.0000e-003	0.0000	0.1257
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0698	2.9590	0.0000	124.0457

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 7 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 7 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	2.90	Acre	2.90	126,324.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	63162	0
tblAreaCoating	Area_Nonresidential_Interior	189486	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	132.00
tblConstructionPhase	NumDays	1,110.00	220.00
tblConstructionPhase	NumDays	110.00	129.00
tblConstructionPhase	NumDays	75.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	LHD2	5.4790e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MCY	6.0160e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MH	1.1220e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	OBUS	1.9260e-003	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	SBUS	7.5300e-004	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblFleetMix	UBUS	1.9320e-003	0.00
tblGrading	AcresOfGrading	903.00	80.20
tblGrading	MaterialExported	0.00	848,378.00
tblGrading	MaterialImported	0.00	848,378.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	43.00	86.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	129.00	258.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	36.3878	245.7583	162.6239	0.4891	18.6298	4.9566	23.5864	8.0760	4.5836	12.6597	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4637
Maximum	36.3878	245.7583	162.6239	0.4891	18.6298	4.9566	23.5864	8.0760	4.5836	12.6597	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4637

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					
2025	36.3878	245.7583	162.6239	0.4891	9.7532	4.9566	14.7098	3.8234	4.5836	8.4070	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4636
Maximum	36.3878	245.7583	162.6239	0.4891	9.7532	4.9566	14.7098	3.8234	4.5836	8.4070	0.0000	50,049.0902	50,049.0902	10.2549	0.0000	50,305.4636

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	47.65	0.00	37.63	52.66	0.00	33.59	0.00	0.00	0.00	0.00	0.00	0.00

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	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Total	332.8445	7.7163	414.5842	0.7276	11.0473	55.8189	66.8662	2.7116	55.8189	58.5306	5,832.0635	4,060.0776	9,892.1411	5.4425	0.4878	10,173.5544

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	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Total	332.8445	7.7163	414.5842	0.7276	11.0473	55.8189	66.8662	2.7116	55.8189	58.5306	5,832.0635	4,060.0776	9,892.1411	5.4425	0.4878	10,173.5544

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Utilities	Trenching	2/1/2025	7/31/2025	5	130	
3	Building Construction	Building Construction	3/1/2025	12/31/2025	5	220	
4	Paving	Paving	7/1/2025	12/31/2025	5	132	
5	Architectural Coating	Architectural Coating	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 80.2

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 189,486; Non-Residential Outdoor: 63,162; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	212,095.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	258.00	86.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					14.5518	0.0000	14.5518	6.9715	0.0000	6.9715			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	14.5518	3.0843	17.6360	6.9715	2.8375	9.8091		16,645.5782	16,645.5782	5.3835		16,780.1662

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8449	127.7761	18.0824	0.1837	0.7521	0.0415	0.7937	0.2091	0.0397	0.2489		20,272.1379	20,272.1379	2.3894		20,331.8716
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	2.0020	127.8647	19.2029	0.1876	1.2122	0.0445	1.2566	0.3312	0.0424	0.3736		20,661.6244	20,661.6244	2.3986		20,721.5899

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6752	0.0000	5.6752	2.7189	0.0000	2.7189			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	5.6752	3.0843	8.7595	2.7189	2.8375	5.5564	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8449	127.7761	18.0824	0.1837	0.7521	0.0415	0.7937	0.2091	0.0397	0.2489		20,272.1379	20,272.1379	2.3894		20,331.8716
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	2.0020	127.8647	19.2029	0.1876	1.2122	0.0445	1.2566	0.3312	0.0424	0.3736		20,661.6244	20,661.6244	2.3986		20,721.5899

3.3 Utilities - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851
Total	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851
Total	0.0561	0.0317	0.4002	1.3900e-003	0.1643	1.0500e-003	0.1654	0.0436	9.7000e-004	0.0446		139.1023	139.1023	3.3100e-003		139.1851

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1746	6.3316	1.8391	0.0221	0.5822	7.2800e-003	0.5895	0.1676	6.9600e-003	0.1746		2,388.9766	2,388.9766	0.1555		2,392.8641
Worker	0.7239	0.4084	5.1624	0.0180	2.1194	0.0136	2.1330	0.5622	0.0125	0.5747		1,794.4200	1,794.4200	0.0427		1,795.4881
Total	0.8985	6.7400	7.0015	0.0401	2.7016	0.0209	2.7224	0.7298	0.0195	0.7492		4,183.3966	4,183.3966	0.1982		4,188.3522

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1746	6.3316	1.8391	0.0221	0.5822	7.2800e-003	0.5895	0.1676	6.9600e-003	0.1746		2,388.9766	2,388.9766	0.1555		2,392.8641
Worker	0.7239	0.4084	5.1624	0.0180	2.1194	0.0136	2.1330	0.5622	0.0125	0.5747		1,794.4200	1,794.4200	0.0427		1,795.4881

Total	0.8985	6.7400	7.0015	0.0401	2.7016	0.0209	2.7224	0.7298	0.0195	0.7492		4,183.3966	4,183.3966	0.1982		4,188.3522

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183
Total	0.1571	0.0887	1.1205	3.9100e-003	0.4600	2.9400e-003	0.4630	0.1220	2.7100e-003	0.1247		389.4865	389.4865	9.2700e-003		389.7183

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Archit. Coating	27.9427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	28.2845	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813
Total	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813

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	27.9427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	28.2845	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813
Total	0.1459	0.0823	1.0405	3.6300e-003	0.4272	2.7300e-003	0.4299	0.1133	2.5200e-003	0.1158		361.6660	361.6660	8.6100e-003		361.8813

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	11.0473	0.0000	11.0473	2.7116	0.0000	2.7116		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5.48	65.98	48.55	43,284	43,284
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,004.68	2,147.08	1,858.75	5,707,921	5,707,921

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488
Unmitigated	332.6994	6.4763	414.0566	0.7197		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.7925					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5239	0.2000	17.3442	9.1000e-004		0.0958	0.0958		0.0958	0.0958		31.1966	31.1966	0.0301		31.9491
Total	332.6994	6.4763	414.0565	0.7196		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.7925					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5239	0.2000	17.3442	9.1000e-004		0.0958	0.0958		0.0958	0.0958		31.1966	31.1966	0.0301		31.9491
Total	332.6994	6.4763	414.0565	0.7196		55.7187	55.7187		55.7187	55.7187	5,832.0635	2,477.0790	8,309.1424	5.4121	0.4587	8,581.1488

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 8 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 8 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
City Park	2.30	Acre	2.30	100,188.00	0
Condo/Townhouse	57.00	Dwelling Unit	8.30	57,000.00	163
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601
Strip Mall	20.00	1000sqft	8.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	200.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00

tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	65094	0
tblAreaCoating	Area_Nonresidential_Interior	195282	0
tblAreaCoating	Area_Residential_Exterior	293625	0
tblAreaCoating	Area_Residential_Interior	880875	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	131.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	129.00
tblConstructionPhase	NumDays	110.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	903.00	100.50
tblGrading	MaterialExported	0.00	1,063,117.00
tblGrading	MaterialImported	0.00	1,063,117.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	3.56	8.30
tblLandUse	LotAcreage	68.18	58.70
tblLandUse	LotAcreage	0.46	8.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00

tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	50.00	96.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	168.00	330.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	34.00	66.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	4.1987	20.8573	15.5644	0.0431	1.5026	0.4456	1.9482	0.5968	0.4136	1.0104	0.0000	3,973.4697	3,973.4697	0.7983	0.0000	3,993.4278
Maximum	4.1987	20.8573	15.5644	0.0431	1.5026	0.4456	1.9482	0.5968	0.4136	1.0104	0.0000	3,973.4697	3,973.4697	0.7983	0.0000	3,993.4278

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					
2026	4.1987	20.8573	15.5644	0.0431	0.9051	0.4456	1.3507	0.3190	0.4136	0.7326	0.0000	3,973.4673	3,973.4673	0.7983	0.0000	3,993.4253
Maximum	4.1987	20.8573	15.5644	0.0431	0.9051	0.4456	1.3507	0.3190	0.4136	0.7326	0.0000	3,973.4673	3,973.4673	0.7983	0.0000	3,993.4253

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	39.76	0.00	30.67	46.55	0.00	27.49	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106
Energy	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818
Mobile	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	61.5327	0.0000	61.5327	3.6365	0.0000	152.4445
Water						0.0000	0.0000		0.0000	0.0000	6.5529	0.0000	6.5529	0.6730	0.0159	28.1147
Total	19.0526	0.6262	22.7858	0.0393	2.5939	2.9328	5.5267	0.6367	2.9328	3.5695	343.8852	437.8915	781.7768	4.5733	0.0434	909.0516

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	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106
Energy	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818
Mobile	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	61.5327	0.0000	61.5327	3.6365	0.0000	152.4445
Water						0.0000	0.0000		0.0000	0.0000	6.5529	0.0000	6.5529	0.6730	0.0159	28.1147
Total	19.0526	0.6262	22.7858	0.0393	2.5939	2.9328	5.5267	0.6367	2.9328	3.5695	343.8852	437.8915	781.7768	4.5733	0.0434	909.0516

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2026	6/30/2026	5	129	
2	Utilities	Trenching	2/1/2026	7/31/2026	5	129	
3	Building Construction	Building Construction	3/1/2026	12/31/2026	5	219	
4	Paving	Paving	7/1/2026	12/31/2026	5	131	
5	Architectural Coating	Architectural Coating	7/1/2026	12/31/2026	5	131	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 100.5

Acres of Paving: 0

Residential Indoor: 880,875; Residential Outdoor: 293,625; Non-Residential Indoor: 195,282; Non-Residential Outdoor: 65,094; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	265,780.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	330.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2026

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					0.9795	0.0000	0.9795	0.4554	0.0000	0.4554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9896	973.9896	0.3150	0.0000	981.8648
Total	0.5198	4.6817	5.2129	0.0111	0.9795	0.1989	1.1785	0.4554	0.1830	0.6384	0.0000	973.9896	973.9896	0.3150	0.0000	981.8648

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	0.1532	10.0855	1.6569	0.0140	0.0596	3.4000e-003	0.0630	0.0166	3.2500e-003	0.0199	0.0000	1,401.1740	1,401.1740	0.1775	0.0000	1,405.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8100e-003	5.8700e-003	0.0636	2.3000e-004	0.0290	1.8000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	20.8194	20.8194	4.8000e-004	0.0000	20.8314
Total	0.1630	10.0914	1.7206	0.0142	0.0886	3.5800e-003	0.0921	0.0243	3.4200e-003	0.0277	0.0000	1,421.9934	1,421.9934	0.1780	0.0000	1,426.4422

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					0.3820	0.0000	0.3820	0.1776	0.0000	0.1776	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5198	4.6817	5.2129	0.0111		0.1989	0.1989		0.1830	0.1830	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637

Total	0.5198	4.6817	5.2129	0.0111	0.3820	0.1989	0.5810	0.1776	0.1830	0.3606	0.0000	973.9885	973.9885	0.3150	0.0000	981.8637

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	0.1532	10.0855	1.6569	0.0140	0.0596	3.4000e-003	0.0630	0.0166	3.2500e-003	0.0199	0.0000	1,401.1740	1,401.1740	0.1775	0.0000	1,405.6109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8100e-003	5.8700e-003	0.0636	2.3000e-004	0.0290	1.8000e-004	0.0292	7.7000e-003	1.7000e-004	7.8700e-003	0.0000	20.8194	20.8194	4.8000e-004	0.0000	20.8314
Total	0.1630	10.0914	1.7206	0.0142	0.0886	3.5800e-003	0.0921	0.0243	3.4200e-003	0.0277	0.0000	1,421.9934	1,421.9934	0.1780	0.0000	1,426.4422

3.3 Utilities - 2026

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056
Total	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975
Total	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054
Total	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975
Total	3.5300e-003	2.1100e-003	0.0229	8.0000e-005	0.0104	7.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.4931	7.4931	1.7000e-004	0.0000	7.4975

3.4 Building Construction - 2026

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	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8009	505.8009	0.1187	0.0000	508.7687
Total	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8009	505.8009	0.1187	0.0000	508.7687

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.7675	0.2323	2.6500e-003	0.0698	8.8000e-004	0.0707	0.0201	8.4000e-004	0.0210	0.0000	260.5793	260.5793	0.0175	0.0000	261.0155
Worker	0.0981	0.0587	0.6367	2.3000e-003	0.2898	1.8400e-003	0.2916	0.0770	1.6900e-003	0.0787	0.0000	208.2802	208.2802	4.8000e-003	0.0000	208.4002
Total	0.1194	0.8262	0.8690	4.9500e-003	0.3595	2.7200e-003	0.3623	0.0971	2.5300e-003	0.0997	0.0000	468.8595	468.8595	0.0223	0.0000	469.4157

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	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8003	505.8003	0.1187	0.0000	508.7681
Total	0.2982	2.7177	3.5153	5.8800e-003		0.1150	0.1150		0.1082	0.1082	0.0000	505.8003	505.8003	0.1187	0.0000	508.7681

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0213	0.7675	0.2323	2.6500e-003	0.0698	8.8000e-004	0.0707	0.0201	8.4000e-004	0.0210	0.0000	260.5793	260.5793	0.0175	0.0000	261.0155
Worker	0.0981	0.0587	0.6367	2.3000e-003	0.2898	1.8400e-003	0.2916	0.0770	1.6900e-003	0.0787	0.0000	208.2802	208.2802	4.8000e-003	0.0000	208.4002
Total	0.1194	0.8262	0.8690	4.9500e-003	0.3595	2.7200e-003	0.3623	0.0971	2.5300e-003	0.0997	0.0000	468.8595	468.8595	0.0223	0.0000	469.4157

3.5 Paving - 2026

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158
Total	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158
Total	0.0100	6.0000e-003	0.0651	2.4000e-004	0.0296	1.9000e-004	0.0298	7.8800e-003	1.7000e-004	8.0500e-003	0.0000	21.3036	21.3036	4.9000e-004	0.0000	21.3158

3.6 Architectural Coating - 2026

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	2.7799					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	2.8024	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222
Total	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222

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	2.7799					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	2.8024	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222
Total	0.0118	7.0700e-003	0.0768	2.8000e-004	0.0349	2.2000e-004	0.0352	9.2800e-003	2.0000e-004	9.4900e-003	0.0000	25.1078	25.1078	5.8000e-004	0.0000	25.1222

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	2.5939	0.0000	2.5939	0.6367	0.0000	0.6367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.35	52.33	38.50	34,329	34,329
Condo/Townhouse	331.17	323.19	275.88	919,783	919,783
General Office Building	110.30	24.60	10.50	200,261	200,261
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	3,331.42	3,322.02	2,543.68	8,068,944	8,068,944

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Condo/Townhouse	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818

NaturalGas Unmitigated	0.0322	0.2762	0.1225	1.7600e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1100e-003	5.8500e-003	320.8818

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas s 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.0322	0.2762	0.1225	1.7500e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1200e-003	5.8400e-003	320.8818

Mitigated

	NaturalGas s 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	819822	4.4200e-003	0.0378	0.0161	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.7489	43.7489	8.4000e-004	8.0000e-004	44.0088
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.0322	0.2762	0.1225	1.7500e-003		0.0223	0.0223		0.0223	0.0223	0.0000	318.9862	318.9862	6.1200e-003	5.8400e-003	320.8818

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	0.0000	0.0000	0.0000	0.0000
General Office Building	134400	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	286330	0.0000	0.0000	0.0000	0.0000
General Office Building	134400	0.0000	0.0000	0.0000	0.0000

Hearth	16.7532	0.3272	20.6801	0.0375		2.8995	2.8995		2.8995	2.8995	275.7997	115.6664	391.4661	0.2545	0.0217	404.2938
Landscaping	0.0598	0.0229	1.9832	1.0000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2390	3.2390	3.1200e-003	0.0000	3.3169
Total	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2073					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	16.7532	0.3272	20.6801	0.0375		2.8995	2.8995		2.8995	2.8995	275.7997	115.6664	391.4661	0.2545	0.0217	404.2938
Landscaping	0.0598	0.0229	1.9832	1.0000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	3.2390	3.2390	3.1200e-003	0.0000	3.3169
Total	19.0203	0.3500	22.6633	0.0376		2.9105	2.9105		2.9105	2.9105	275.7997	118.9053	394.7051	0.2576	0.0217	407.6106

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.5529	0.6730	0.0159	28.1147

Unmitigated	6.5529	0.6730	0.0159	28.1147

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.74041	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.71378 / 2.3413	1.1782	0.1210	2.8600e-003	5.0551
General Office Building	1.77734 / 1.08934	0.5639	0.0579	1.3700e-003	2.4192
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		6.5529	0.6730	0.0159	28.1147

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.74041	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	3.71378 / 2.3413	1.1782	0.1210	2.8600e-003	5.0551
General Office Building	1.77734 / 1.08934	0.5639	0.0579	1.3700e-003	2.4192

Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		6.5529	0.6730	0.0159	28.1147

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	61.5327	3.6365	0.0000	152.4445
Unmitigated	61.5327	3.6365	0.0000	152.4445

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.2	0.0406	2.4000e-003	0.0000	0.1006
Condo/Townhouse	26.22	5.3224	0.3146	0.0000	13.1861

General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		61.5327	3.6365	0.0000	152.4445

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.2	0.0406	2.4000e-003	0.0000	0.1006
Condo/Townhouse	26.22	5.3224	0.3146	0.0000	13.1861
General Office Building	9.3	1.8878	0.1116	0.0000	4.6770
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		61.5327	3.6365	0.0000	152.4445

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 8 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 8 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
City Park	2.30	Acre	2.30	100,188.00	0
Condo/Townhouse	57.00	Dwelling Unit	8.30	57,000.00	163
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601
Strip Mall	20.00	1000sqft	8.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	200.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00

tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	65094	0
tblAreaCoating	Area_Nonresidential_Interior	195282	0
tblAreaCoating	Area_Residential_Exterior	293625	0
tblAreaCoating	Area_Residential_Interior	880875	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	110.00	131.00
tblConstructionPhase	NumDays	1,550.00	219.00
tblConstructionPhase	NumDays	155.00	129.00
tblConstructionPhase	NumDays	110.00	131.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00

tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	903.00	100.50
tblGrading	MaterialExported	0.00	1,063,117.00
tblGrading	MaterialImported	0.00	1,063,117.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	3.56	8.30
tblLandUse	LotAcreage	68.18	58.70
tblLandUse	LotAcreage	0.46	8.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00

tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	50.00	96.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	168.00	330.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	34.00	66.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	50.7648	276.8387	168.4665	0.5389	20.1141	4.9658	25.0799	8.3942	4.5923	12.9865	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050
Maximum	50.7648	276.8387	168.4665	0.5389	20.1141	4.9658	25.0799	8.3942	4.5923	12.9865	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050

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					
2026	50.7648	276.8387	168.4665	0.5389	10.8503	4.9658	15.8161	4.0874	4.5923	8.6797	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050
Maximum	50.7648	276.8387	168.4665	0.5389	10.8503	4.9658	15.8161	4.0874	4.5923	8.6797	0.0000	55,550.8080	55,550.8080	10.7719	0.0000	55,820.1050

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	46.06	0.00	36.94	51.31	0.00	33.16	0.00	0.00	0.00	0.00	0.00	0.00

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	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.052 1	3,149.435 2	10,564.487 3	6.8810	0.5833	10,910.32 14
Energy	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.696 4	1,926.6964	0.0369	0.0353	1,938.145 8
Mobile	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Total	421.5512	9.7470	527.0988	0.9246	15.6695	70.9645	86.6339	3.8461	70.9645	74.8106	7,415.052 1	5,076.131 7	12,491.183 8	6.9180	0.6186	12,848.46 72

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	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.052 1	3,149.435 2	10,564.487 3	6.8810	0.5833	10,910.32 14
Energy	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.696 4	1,926.6964	0.0369	0.0353	1,938.145 8
Mobile	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Total	421.5512	9.7470	527.0988	0.9246	15.6695	70.9645	86.6339	3.8461	70.9645	74.8106	7,415.052 1	5,076.131 7	12,491.183 8	6.9180	0.6186	12,848.46 72

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Grading	Grading	1/1/2026	6/30/2026	5	129
2	Utilities	Trenching	2/1/2026	7/31/2026	5	129
3	Building Construction	Building Construction	3/1/2026	12/31/2026	5	219
4	Paving	Paving	7/1/2026	12/31/2026	5	131
5	Architectural Coating	Architectural Coating	7/1/2026	12/31/2026	5	131

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 100.5

Acres of Paving: 0

Residential Indoor: 880,875; Residential Outdoor: 293,625; Non-Residential Indoor: 195,282; Non-Residential Outdoor: 65,094; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36

Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	265,780.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	330.00	96.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	66.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2026

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					15.1865	0.0000	15.1865	7.0604	0.0000	7.0604			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	15.1865	3.0843	18.2708	7.0604	2.8375	9.8979		16,645.5782	16,645.5782	5.3835		16,780.1662

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	2.2575	158.1515	22.7822	0.2272	0.9425	0.0470	0.9895	0.2621	0.0450	0.3070		25,114.1871	25,114.1871	2.8825		25,186.2496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	2.4080	158.2339	23.8360	0.2309	1.4025	0.0499	1.4524	0.3841	0.0476	0.4317		25,489.4063	25,489.4063	2.8911		25,561.6850

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9227	0.0000	5.9227	2.7536	0.0000	2.7536			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	5.9227	3.0843	9.0070	2.7536	2.8375	5.5911	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662

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	2.2575	158.1515	22.7822	0.2272	0.9425	0.0470	0.9895	0.2621	0.0450	0.3070		25,114.1871	25,114.1871	2.8825	25,186.2496
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003	375.4353
Total	2.4080	158.2339	23.8360	0.2309	1.4025	0.0499	1.4524	0.3841	0.0476	0.4317		25,489.4063	25,489.4063	2.8911	25,561.6850

3.3 Utilities - 2026

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841

Total	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841
Total	0.0537	0.0295	0.3764	1.3400e-003	0.1643	1.0200e-003	0.1653	0.0436	9.4000e-004	0.0445		134.0069	134.0069	3.0900e-003		134.0841

3.4 Building Construction - 2026

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1900	6.9675	2.0248	0.0245	0.6499	7.9100e-003	0.6578	0.1871	7.5600e-003	0.1946		2,651.3148	2,651.3148	0.1719		2,655.6128
Worker	0.8868	0.4859	6.2101	0.0222	2.7109	0.0168	2.7277	0.7191	0.0155	0.7345		2,211.1132	2,211.1132	0.0509		2,212.3868
Total	1.0767	7.4535	8.2349	0.0466	3.3607	0.0247	3.3855	0.9061	0.0230	0.9292		4,862.4280	4,862.4280	0.2229		4,867.9996

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1900	6.9675	2.0248	0.0245	0.6499	7.9100e-003	0.6578	0.1871	7.5600e-003	0.1946		2,651.3148	2,651.3148	0.1719		2,655.6128
Worker	0.8868	0.4859	6.2101	0.0222	2.7109	0.0168	2.7277	0.7191	0.0155	0.7345		2,211.1132	2,211.1132	0.0509		2,212.3868
Total	1.0767	7.4535	8.2349	0.0466	3.3607	0.0247	3.3855	0.9061	0.0230	0.9292		4,862.4280	4,862.4280	0.2229		4,867.9996

3.5 Paving - 2026

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353
Total	0.1505	0.0825	1.0538	3.7600e-003	0.4600	2.8500e-003	0.4629	0.1220	2.6300e-003	0.1247		375.2192	375.2192	8.6400e-003		375.4353

3.6 Architectural Coating - 2026

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	42.1192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	42.4609	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774

Total	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774

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	42.1192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	42.4609	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774
Total	0.1774	0.0972	1.2420	4.4300e-003	0.5422	3.3600e-003	0.5455	0.1438	3.0900e-003	0.1469		442.2226	442.2226	0.0102		442.4774

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	15.6695	0.0000	15.6695	3.8461	0.0000	3.8461		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	4.35	52.33	38.50	34,329	34,329
Condo/Townhouse	331.17	323.19	275.88	919,783	919,783
General Office Building	110.30	24.60	10.50	200,261	200,261
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	3,331.42	3,322.02	2,543.68	8,068,944	8,068,944

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH

City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Condo/Townhouse	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
General Office Building	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458
NaturalGas Unmitigated	0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Condo/Townhouse	2246.09	0.0242	0.2070	0.0881	1.3200e-003		0.0167	0.0167		0.0167	0.0167		264.2458	264.2458	5.0600e-003	4.8400e-003	265.8160
General Office Building	553.151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Strip Mall	122.192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.24609	0.0242	0.2070	0.0881	1.3200e-003		0.0167	0.0167		0.0167	0.0167		264.2458	264.2458	5.0600e-003	4.8400e-003	265.8160
General Office Building	0.553151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Strip Mall	0.122192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		0.1766	1.5132	0.6714	9.6300e-003		0.1220	0.1220		0.1220	0.1220		1,926.6964	1,926.6964	0.0369	0.0353	1,938.1458

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.052 1	3,149.435 2	10,564.487 3	6.8810	0.5833	10,910.32 14
Unmitigated	421.3746	8.2338	526.4274	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.052 1	3,149.435 2	10,564.487 3	6.8810	0.5833	10,910.32 14

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.0950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	408.6155	7.9798	504.3914	0.9138		70.7205	70.7205		70.7205	70.7205	7,415.052 1	3,109.764 7	10,524.816 8	6.8429	0.5833	10,869.69 68
Landscaping	0.6641	0.2540	22.0361	1.1600e-003		0.1220	0.1220		0.1220	0.1220		39.6705	39.6705	0.0382		40.6245
Total	421.3746	8.2338	526.4275	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.052 1	3,149.435 2	10,564.487 3	6.8810	0.5833	10,910.32 14

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	12.0950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	408.6155	7.9798	504.3914	0.9138		70.7205	70.7205		70.7205	70.7205	7,415.0521	3,109.7647	10,524.8168	6.8429	0.5833	10,869.6968
Landscaping	0.6641	0.2540	22.0361	1.1600e-003		0.1220	0.1220		0.1220	0.1220		39.6705	39.6705	0.0382		40.6245
Total	421.3746	8.2338	526.4275	0.9150		70.8424	70.8424		70.8424	70.8424	7,415.0521	3,149.4352	10,564.4873	6.8810	0.5833	10,910.3214

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 9 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 9 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	69,696.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	34848	0
tblAreaCoating	Area_Nonresidential_Interior	104544	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblGrading	AcresOfGrading	910.00	78.60
tblGrading	MaterialExported	0.00	831,453.00
tblGrading	MaterialImported	0.00	831,453.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	34.00	68.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	105.00	210.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	21.00	42.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	3.0737	18.4726	15.0198	0.0389	1.3068	0.4539	1.7607	0.5498	0.4212	0.9710	0.0000	3,557.4371	3,557.4371	0.7706	0.0000	3,576.7015
Maximum	3.0737	18.4726	15.0198	0.0389	1.3068	0.4539	1.7607	0.5498	0.4212	0.9710	0.0000	3,557.4371	3,557.4371	0.7706	0.0000	3,576.7015

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					
2027	3.0737	18.4726	15.0198	0.0389	0.7370	0.4539	1.1908	0.2759	0.4212	0.6971	0.0000	3,557.4346	3,557.4346	0.7706	0.0000	3,576.6990
Maximum	3.0737	18.4726	15.0198	0.0389	0.7370	0.4539	1.1908	0.2759	0.4212	0.6971	0.0000	3,557.4346	3,557.4346	0.7706	0.0000	3,576.6990

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	43.61	0.00	32.36	49.82	0.00	28.21	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0474	0.0000	50.0474	2.9577	0.0000	123.9904
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	14.9985	0.5016	17.9201	0.0310	1.8287	2.3075	4.1362	0.4489	2.3075	2.7563	271.3093	355.6038	626.9131	3.6112	0.0324	726.8469

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	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Energy	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Mobile	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	50.0474	0.0000	50.0474	2.9577	0.0000	123.9904
Water						0.0000	0.0000		0.0000	0.0000	4.3408	0.0000	4.3408	0.4458	0.0105	18.6239
Total	14.9985	0.5016	17.9201	0.0310	1.8287	2.3075	4.1362	0.4489	2.3075	2.7563	271.3093	355.6038	626.9131	3.6112	0.0324	726.8469

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2027	6/30/2027	5	130	
2	Utilities	Trenching	2/1/2027	7/31/2027	5	129	
3	Building Construction	Building Construction	3/1/2027	12/31/2027	5	218	
4	Paving	Paving	7/1/2027	12/31/2027	5	130	
5	Architectural Coating	Architectural Coating	7/1/2027	12/31/2027	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 104,544; Non-Residential Outdoor: 34,848; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Sweepers/Scrubbers	2	8.00	64	0.46
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	207,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT

Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	210.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2027

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					0.9341	0.0000	0.9341	0.4490	0.0000	0.4490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5509	4.8651	5.4236	0.0120		0.2050	0.2050		0.1886	0.1886	0.0000	1,053.4594	1,053.4594	0.3407	0.0000	1,061.9772
Total	0.5509	4.8651	5.4236	0.0120	0.9341	0.2050	1.1392	0.4490	0.1886	0.6377	0.0000	1,053.4594	1,053.4594	0.3407	0.0000	1,061.9772

Unmitigated Construction Off-Site

[illegible]

Worker	9.3900e-003	5.4700e-003	0.0600	2.2000e-004	0.0290	1.7000e-004	0.0291	7.7000e-003	1.6000e-004	7.8600e-003	0.0000	20.1220	20.1220	4.5000e-004	0.0000	20.1332
Total	0.1259	7.7503	1.3493	0.0109	0.0755	2.6000e-003	0.0781	0.0207	2.4800e-003	0.0231	0.0000	1,097.1330	1,097.1330	0.1335	0.0000	1,100.4691

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					0.3643	0.0000	0.3643	0.1751	0.0000	0.1751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5509	4.8651	5.4236	0.0120		0.2050	0.2050		0.1886	0.1886	0.0000	1,053.4581	1,053.4581	0.3407	0.0000	1,061.9759
Total	0.5509	4.8651	5.4236	0.0120	0.3643	0.2050	0.5694	0.1751	0.1886	0.3638	0.0000	1,053.4581	1,053.4581	0.3407	0.0000	1,061.9759

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	0.1165	7.7448	1.2893	0.0107	0.0465	2.4300e-003	0.0489	0.0130	2.3200e-003	0.0153	0.0000	1,077.0110	1,077.0110	0.1330	0.0000	1,080.3360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.3900e-003	5.4700e-003	0.0600	2.2000e-004	0.0290	1.7000e-004	0.0291	7.7000e-003	1.6000e-004	7.8600e-003	0.0000	20.1220	20.1220	4.5000e-004	0.0000	20.1332
Total	0.1259	7.7503	1.3493	0.0109	0.0755	2.6000e-003	0.0781	0.0207	2.4800e-003	0.0231	0.0000	1,097.1330	1,097.1330	0.1335	0.0000	1,100.4691

3.3 Utilities - 2027

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	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6290	189.6290	0.0613	0.0000	191.1622
Total	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6290	189.6290	0.0613	0.0000	191.1622

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462
Total	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462

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	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6288	189.6288	0.0613	0.0000	191.1620
Total	0.1069	0.9083	1.4587	2.1600e-003		0.0529	0.0529		0.0487	0.0487	0.0000	189.6288	189.6288	0.0613	0.0000	191.1620

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462
Total	3.3800e-003	1.9700e-003	0.0216	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	6.0000e-005	2.8300e-003	0.0000	7.2421	7.2421	1.6000e-004	0.0000	7.2462

3.4 Building Construction - 2027

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	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1105	508.1105	0.1193	0.0000	511.0918
Total	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1105	508.1105	0.1193	0.0000	511.0918

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.5385	0.1632	1.8700e-003	0.0497	6.1000e-004	0.0503	0.0143	5.8000e-004	0.0149	0.0000	184.4411	184.4411	0.0123	0.0000	184.7488
Worker	0.0600	0.0350	0.3839	1.4200e-003	0.1852	1.1100e-003	0.1864	0.0492	1.0200e-003	0.0503	0.0000	128.6869	128.6869	2.8700e-003	0.0000	128.7587
Total	0.0748	0.5735	0.5471	3.2900e-003	0.2349	1.7200e-003	0.2366	0.0636	1.6000e-003	0.0652	0.0000	313.1280	313.1280	0.0152	0.0000	313.5074

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	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1099	508.1099	0.1193	0.0000	511.0912
Total	0.2995	2.7301	3.5314	5.9100e-003		0.1155	0.1155		0.1087	0.1087	0.0000	508.1099	508.1099	0.1193	0.0000	511.0912

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.5385	0.1632	1.8700e-003	0.0497	6.1000e-004	0.0503	0.0143	5.8000e-004	0.0149	0.0000	184.4411	184.4411	0.0123	0.0000	184.7488
Worker	0.0600	0.0350	0.3839	1.4200e-003	0.1852	1.1100e-003	0.1864	0.0492	1.0200e-003	0.0503	0.0000	128.6869	128.6869	2.8700e-003	0.0000	128.7587
Total	0.0748	0.5735	0.5471	3.2900e-003	0.2349	1.7200e-003	0.2366	0.0636	1.6000e-003	0.0652	0.0000	313.1280	313.1280	0.0152	0.0000	313.5074

3.5 Paving - 2027

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9999	318.9999	0.0979	0.0000	321.4463

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014

Total	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014

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	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1669	1.4823	2.3418	3.7300e-003		0.0689	0.0689		0.0640	0.0640	0.0000	318.9995	318.9995	0.0979	0.0000	321.4459

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014
Total	9.6000e-003	5.6000e-003	0.0614	2.3000e-004	0.0296	1.8000e-004	0.0298	7.8800e-003	1.6000e-004	8.0400e-003	0.0000	20.5899	20.5899	4.6000e-004	0.0000	20.6014

3.6 Architectural Coating - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489
Total	1.7286	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7030	33.7030	1.8400e-003	0.0000	33.7489

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510
Total	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	1.7060					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489
Total	1.7286	0.1512	0.2388	3.9000e-004		6.8000e-003	6.8000e-003		6.8000e-003	6.8000e-003	0.0000	33.7029	33.7029	1.8400e-003	0.0000	33.7489

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510
Total	7.2000e-003	4.2000e-003	0.0461	1.7000e-004	0.0222	1.3000e-004	0.0224	5.9100e-003	1.2000e-004	6.0300e-003	0.0000	15.4424	15.4424	3.4000e-004	0.0000	15.4510

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated	0.0000	0.0000	0.0000	0.0000	1.8287	0.0000	1.8287	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.02	36.40	26.78	23,881	23,881
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.22	2,117.50	1,836.98	5,688,517	5,688,517

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
NaturalGas Unmitigated	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.91125e+006	0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406
Total		0.0265	0.2263	0.0963	1.4400e-003		0.0183	0.0183		0.0183	0.0183	0.0000	262.0832	262.0832	5.0200e-003	4.8000e-003	263.6406

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.70013e+006	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920
Unmitigated	14.9720	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7485					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0469	0.0180	1.5586	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5471	2.5471	2.4400e-003	0.0000	2.6082
Total	14.9721	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7485					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	13.1767	0.2573	16.2652	0.0295		2.2805	2.2805		2.2805	2.2805	216.9211	90.9736	307.8947	0.2002	0.0171	317.9839
Landscaping	0.0469	0.0180	1.5586	8.0000e-005		8.6400e-003	8.6400e-003		8.6400e-003	8.6400e-003	0.0000	2.5471	2.5471	2.4400e-003	0.0000	2.6082
Total	14.9721	0.2753	17.8238	0.0296		2.2892	2.2892		2.2892	2.2892	216.9211	93.5206	310.4418	0.2026	0.0171	320.5920

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.3408	0.4458	0.0105	18.6239
Unmitigated	4.3408	0.4458	0.0105	18.6239

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Land Use	Mgal	MT/yr			
City Park	0 / 1.90637	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.90637	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.6823 / 8.62583	4.3408	0.4458	0.0105	18.6239
Total		4.3408	0.4458	0.0105	18.6239

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	50.0474	2.9577	0.0000	123.9904

Unmitigated	50.0474	2.9577	0.0000	123.9904

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0474	2.9577	0.0000	123.9904

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.14	0.0284	1.6800e-003	0.0000	0.0704
Single Family Housing	246.41	50.0190	2.9560	0.0000	123.9200
Total		50.0474	2.9577	0.0000	123.9904

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 9 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 9 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.60	Acre	1.60	69,696.00	0
Single Family Housing	210.00	Dwelling Unit	58.70	378,000.00	601

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	34848	0
tblAreaCoating	Area_Nonresidential_Interior	104544	0

tblAreaCoating	Area_Residential_Exterior	255150	0
tblAreaCoating	Area_Residential_Interior	765450	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	218.00
tblConstructionPhase	NumDays	110.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	LHD2	5.3950e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MCY	5.8690e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MH	9.9800e-004	0.00
tblFleetMix	MHD	0.02	0.00

tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	OBUS	1.9290e-003	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	SBUS	7.6100e-004	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblFleetMix	UBUS	1.8570e-003	0.00
tblGrading	AcresOfGrading	910.00	78.60
tblGrading	MaterialExported	0.00	831,453.00
tblGrading	MaterialImported	0.00	831,453.00
tblLandUse	GreenSpaceAllowEdit	1.00	0.00
tblLandUse	LotAcreage	68.18	58.70
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	34.00	68.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	105.00	210.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	21.00	42.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	34.0610	240.9154	162.8835	0.4830	18.0281	5.0954	23.1235	7.9220	4.7110	12.6329	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0784
Maximum	34.0610	240.9154	162.8835	0.4830	18.0281	5.0954	23.1235	7.9220	4.7110	12.6329	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0784

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					
2027	34.0610	240.9154	162.8835	0.4830	9.1936	5.0954	14.2890	3.6752	4.7110	8.3862	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0783
Maximum	34.0610	240.9154	162.8835	0.4830	9.1936	5.0954	14.2890	3.6752	4.7110	8.3862	0.0000	49,334.5573	49,334.5573	10.3809	0.0000	49,594.0783

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.00	0.00	38.21	53.61	0.00	33.62	0.00	0.00	0.00	0.00	0.00	0.00

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	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Total	331.6295	7.7158	414.5582	0.7276	10.9326	55.8191	66.7517	2.6835	55.8191	58.5026	5,832.0635	4,060.0773	9,892.1408	5.4423	0.4878	10,173.5500

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	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Energy	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Mobile	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Total	331.6295	7.7158	414.5582	0.7276	10.9326	55.8191	66.7517	2.6835	55.8191	58.5026	5,832.0635	4,060.0773	9,892.1408	5.4423	0.4878	10,173.5500

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2027	6/30/2027	5	130	
2	Utilities	Trenching	2/1/2027	7/31/2027	5	129	
3	Building Construction	Building Construction	3/1/2027	12/31/2027	5	218	
4	Paving	Paving	7/1/2027	12/31/2027	5	130	
5	Architectural Coating	Architectural Coating	7/1/2027	12/31/2027	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 78.6

Acres of Paving: 0

Residential Indoor: 765,450; Residential Outdoor: 255,150; Non-Residential Indoor: 104,544; Non-Residential Outdoor: 34,848; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41

Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Sweepers/Scrubbers	2	8.00	64	0.46
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	207,863.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	210.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2027

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					14.4828	0.0000	14.4828	6.9619	0.0000	6.9619			0.0000			0.0000
Off-Road	8.5407	75.4283	84.0869	0.1860		3.1788	3.1788		2.9245	2.9245		18,003.7241	18,003.7241	5.8228		18,149.2933
Total	8.5407	75.4283	84.0869	0.1860	14.4828	3.1788	17.6616	6.9619	2.9245	9.8863		18,003.7241	18,003.7241	5.8228		18,149.2933

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7172	121.4337	17.7540	0.1743	0.7355	0.0338	0.7693	0.2044	0.0323	0.2367		19,303.0617	19,303.0617	2.1608		19,357.0827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	1.8610	121.5107	18.7487	0.1779	1.1956	0.0365	1.2320	0.3264	0.0348	0.3612		19,665.7181	19,665.7181	2.1689		19,719.9415

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6483	0.0000	5.6483	2.7151	0.0000	2.7151			0.0000			0.0000
Off-Road	8.5407	75.4283	84.0869	0.1860		3.1788	3.1788		2.9245	2.9245	0.0000	18,003.7241	18,003.7241	5.8228		18,149.2933
Total	8.5407	75.4283	84.0869	0.1860	5.6483	3.1788	8.8271	2.7151	2.9245	5.6396	0.0000	18,003.7241	18,003.7241	5.8228		18,149.2933

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7172	121.4337	17.7540	0.1743	0.7355	0.0338	0.7693	0.2044	0.0323	0.2367		19,303.0617	19,303.0617	2.1608		19,357.0827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	1.8610	121.5107	18.7487	0.1779	1.1956	0.0365	1.2320	0.3264	0.0348	0.3612		19,665.7181	19,665.7181	2.1689		19,719.9415

3.3 Utilities - 2027

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	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485		3,215.8487	3,215.8487	1.0401		3,241.8504
Total	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485		3,215.8487	3,215.8487	1.0401		3,241.8504

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924
Total	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485	0.0000	3,215.8486	3,215.8486	1.0401		3,241.8504
Total	1.6443	13.9735	22.4416	0.0332		0.8136	0.8136		0.7485	0.7485	0.0000	3,215.8486	3,215.8486	1.0401		3,241.8504

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924
Total	0.0514	0.0275	0.3553	1.3000e-003	0.1643	9.6000e-004	0.1653	0.0436	8.9000e-004	0.0445		129.5201	129.5201	2.8900e-003		129.5924

3.4 Building Construction - 2027

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Vendor	0.1316	4.8673	1.4172	0.0172	0.4603	5.4700e-003	0.4658	0.1325	5.2300e-003	0.1378		1,868.0038	1,868.0038	0.1208	1,871.0228
Worker	0.5395	0.2887	3.7303	0.0136	1.7251	0.0101	1.7352	0.4576	9.3100e-003	0.4669		1,359.9614	1,359.9614	0.0304	1,360.7206
Total	0.6711	5.1560	5.1475	0.0308	2.1854	0.0156	2.2010	0.5901	0.0145	0.6046		3,227.9653	3,227.9653	0.1511	3,231.7434

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1316	4.8673	1.4172	0.0172	0.4603	5.4700e-003	0.4658	0.1325	5.2300e-003	0.1378		1,868.0038	1,868.0038	0.1208		1,871.0228
Worker	0.5395	0.2887	3.7303	0.0136	1.7251	0.0101	1.7352	0.4576	9.3100e-003	0.4669		1,359.9614	1,359.9614	0.0304		1,360.7206

Total	0.6711	5.1560	5.1475	0.0308	2.1854	0.0156	2.2010	0.5901	0.0145	0.6046		3,227.9653	3,227.9653	0.1511		3,231.7434

3.5 Paving - 2027

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588
Total	0.1439	0.0770	0.9947	3.6400e-003	0.4600	2.7000e-003	0.4627	0.1220	2.4800e-003	0.1245		362.6564	362.6564	8.1000e-003		362.8588

3.6 Architectural Coating - 2027

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	25.8489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	26.1906	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441
Total	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441

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	25.8489					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	26.1906	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441
Total	0.1079	0.0577	0.7461	2.7300e-003	0.3450	2.0200e-003	0.3470	0.0915	1.8600e-003	0.0934		271.9923	271.9923	6.0700e-003		272.1441

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	10.9326	0.0000	10.9326	2.6835	0.0000	2.6835		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.02	36.40	26.78	23,881	23,881
Single Family Housing	1,999.20	2,081.10	1810.20	5,664,636	5,664,636
Total	2,002.22	2,117.50	1,836.98	5,688,517	5,688,517

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
NaturalGas Unmitigated	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13455.5	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	13.4555	0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056
Total		0.1451	1.2400	0.5277	7.9100e-003		0.1003	0.1003		0.1003	0.1003		1,582.9986	1,582.9986	0.0303	0.0290	1,592.4056

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444
Unmitigated	331.4844	6.4758	414.0305	0.7197		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5807					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5207	0.1995	17.3181	9.1000e-004		0.0960	0.0960		0.0960	0.0960		31.1963	31.1963	0.0299		31.9447
Total	331.4844	6.4758	414.0305	0.7196		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.5807					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	321.3829	6.2762	396.7123	0.7187		55.6229	55.6229		55.6229	55.6229	5,832.0635	2,445.8824	8,277.9458	5.3820	0.4587	8,549.1998
Landscaping	0.5207	0.1995	17.3181	9.1000e-004		0.0960	0.0960		0.0960	0.0960		31.1963	31.1963	0.0299		31.9447
Total	331.4844	6.4758	414.0305	0.7196		55.7188	55.7188		55.7188	55.7188	5,832.0635	2,477.0787	8,309.1421	5.4120	0.4587	8,581.1444

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 10 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 10 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	100.00	Dwelling Unit	28.00	180,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Residential_Exterior	121500	0
tblAreaCoating	Area_Residential_Interior	364500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0

tblAreaMitigation	UseLowVOCPaintNonresidentialInterior	Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorVap	Value	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorVap	Value	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	Use	0	15
tblConstructionPhase	NumDays		35.00	132.00
tblConstructionPhase	NumDays		440.00	218.00
tblConstructionPhase	NumDays		45.00	130.00
tblConstructionPhase	NumDays		35.00	132.00
tblFleetMix	HHD		0.02	0.00
tblFleetMix	LDA		0.61	0.00
tblFleetMix	LDT1		0.04	0.00
tblFleetMix	LDT2		0.18	0.00
tblFleetMix	LHD1		0.01	0.00
tblFleetMix	LHD2		5.3560e-003	0.00
tblFleetMix	MCY		5.8070e-003	0.00
tblFleetMix	MDV		0.10	0.00
tblFleetMix	MH		9.5000e-004	0.00
tblFleetMix	MHD		0.02	0.00
tblFleetMix	OBUS		1.9280e-003	0.00
tblFleetMix	SBUS		7.6400e-004	0.00
tblFleetMix	UBUS		1.8230e-003	0.00
tblGrading	AcresOfGrading		910.00	36.40
tblGrading	MaterialExported		0.00	385,049.00
tblGrading	MaterialImported		0.00	385,049.00
tblLandUse	LotAcreage		32.47	28.00
tblOffRoadEquipment	HorsePower		231.00	226.00
tblOffRoadEquipment	HorsePower		158.00	162.00
tblOffRoadEquipment	HorsePower		187.00	174.00
tblOffRoadEquipment	HorsePower		130.00	125.00
tblOffRoadEquipment	HorsePower		132.00	130.00

tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	11.00	22.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	7.00	14.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2028	1.9052	13.6979	13.7287	0.0299	1.0328	0.4407	1.4735	0.4882	0.4090	0.8971	0.0000	2,679.2692	2,679.2692	0.6632	0.0000	2,695.8502
Maximum	1.9052	13.6979	13.7287	0.0299	1.0328	0.4407	1.4735	0.4882	0.4090	0.8971	0.0000	2,679.2692	2,679.2692	0.6632	0.0000	2,695.8502

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					
2028	1.9052	13.6979	13.7287	0.0299	0.5105	0.4407	0.9512	0.2194	0.4090	0.6284	0.0000	2,679.2668	2,679.2668	0.6632	0.0000	2,695.8478
Maximum	1.9052	13.6979	13.7287	0.0299	0.5105	0.4407	0.9512	0.2194	0.4090	0.6284	0.0000	2,679.2668	2,679.2668	0.6632	0.0000	2,695.8478

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.57	0.00	35.45	55.06	0.00	29.96	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Energy	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Mobile	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.8027	0.0000	23.8027	1.4067	0.0000	58.9702
Water						0.0000	0.0000		0.0000	0.0000	2.0670	0.0000	2.0670	0.2123	5.0100e-003	8.8685
Total	7.0125	0.2388	8.5330	0.0148	0.8672	1.0988	1.9660	0.2129	1.0988	1.3117	129.1655	169.3351	298.5007	1.7179	0.0154	346.0447

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	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Energy	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Mobile	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	23.8027	0.0000	23.8027	1.4067	0.0000	58.9702
Water						0.0000	0.0000		0.0000	0.0000	2.0670	0.0000	2.0670	0.2123	5.0100e-003	8.8685
Total	7.0125	0.2388	8.5330	0.0148	0.8672	1.0988	1.9660	0.2129	1.0988	1.3117	129.1655	169.3351	298.5007	1.7179	0.0154	346.0447

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2028	6/30/2028	5	130	
2	Utilities	Trenching	2/1/2028	7/31/2028	5	130	
3	Building Construction	Building Construction	3/1/2028	12/31/2028	5	218	
4	Paving	Paving	7/1/2028	12/31/2028	5	132	
5	Architectural Coating	Architectural Coating	7/1/2028	12/31/2028	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 36.4

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50

Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	96,262.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	72.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2028

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					0.8563	0.0000	0.8563	0.4406	0.0000	0.4406	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5238	4.7180	5.2533	0.0112		0.2005	0.2005		0.1844	0.1844	0.0000	981.5400	981.5400	0.3175	0.0000	989.4762
Total	0.5238	4.7180	5.2533	0.0112	0.8563	0.2005	1.0568	0.4406	0.1844	0.6251	0.0000	981.5400	981.5400	0.3175	0.0000	989.4762

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	0.0536	3.5790	0.6083	4.9500e-003	0.0216	1.0500e-003	0.0226	6.0200e-003	1.0000e-003	7.0200e-003	0.0000	498.1427	498.1427	0.0600	0.0000	499.6434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	0.0626	3.5841	0.6656	5.1700e-003	0.0508	1.2100e-003	0.0520	0.0138	1.1500e-003	0.0149	0.0000	517.8039	517.8039	0.0605	0.0000	519.3153

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					0.3340	0.0000	0.3340	0.1718	0.0000	0.1718	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5238	4.7180	5.2533	0.0112		0.2005	0.2005		0.1844	0.1844	0.0000	981.5388	981.5388	0.3175	0.0000	989.4750

Total	0.5238	4.7180	5.2533	0.0112	0.3340	0.2005	0.5344	0.1718	0.1844	0.3563	0.0000	981.5388	981.5388	0.3175	0.0000	989.4750

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	0.0536	3.5790	0.6083	4.9500e-003	0.0216	1.0500e-003	0.0226	6.0200e-003	1.0000e-003	7.0200e-003	0.0000	498.1427	498.1427	0.0600	0.0000	499.6434
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	0.0626	3.5841	0.6656	5.1700e-003	0.0508	1.2100e-003	0.0520	0.0138	1.1500e-003	0.0149	0.0000	517.8039	517.8039	0.0605	0.0000	519.3153

3.3 Utilities - 2028

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056
Total	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2191	196.2191	0.0635	0.0000	197.8056

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257
Total	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257

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	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054
Total	0.1036	0.8917	1.5012	2.2300e-003		0.0491	0.0491		0.0452	0.0452	0.0000	196.2188	196.2188	0.0635	0.0000	197.8054

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257
Total	3.2200e-003	1.8500e-003	0.0205	8.0000e-005	0.0104	6.0000e-005	0.0105	2.7700e-003	5.0000e-005	2.8200e-003	0.0000	7.0219	7.0219	1.5000e-004	0.0000	7.0257

3.4 Building Construction - 2028

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6600e-003	0.1706	0.0520	6.0000e-004	0.0159	1.9000e-004	0.0161	4.6000e-003	1.8000e-004	4.7800e-003	0.0000	58.8674	58.8674	3.9100e-003	0.0000	58.9652
Worker	0.0194	0.0111	0.1236	4.7000e-004	0.0629	3.5000e-004	0.0633	0.0167	3.2000e-004	0.0171	0.0000	42.3904	42.3904	9.2000e-004	0.0000	42.4134
Total	0.0241	0.1818	0.1756	1.0700e-003	0.0789	5.4000e-004	0.0794	0.0213	5.0000e-004	0.0218	0.0000	101.2578	101.2578	4.8300e-003	0.0000	101.3786

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6600e-003	0.1706	0.0520	6.0000e-004	0.0159	1.9000e-004	0.0161	4.6000e-003	1.8000e-004	4.7800e-003	0.0000	58.8674	58.8674	3.9100e-003	0.0000	58.9652
Worker	0.0194	0.0111	0.1236	4.7000e-004	0.0629	3.5000e-004	0.0633	0.0167	3.2000e-004	0.0171	0.0000	42.3904	42.3904	9.2000e-004	0.0000	42.4134
Total	0.0241	0.1818	0.1756	1.0700e-003	0.0789	5.4000e-004	0.0794	0.0213	5.0000e-004	0.0218	0.0000	101.2578	101.2578	4.8300e-003	0.0000	101.3786

3.5 Paving - 2028

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	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1665	314.1665	0.0964	0.0000	316.5759
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1665	314.1665	0.0964	0.0000	316.5759

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719

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	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1662	314.1662	0.0964	0.0000	316.5755

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1644	1.4598	2.3064	3.6800e-003		0.0679	0.0679		0.0631	0.0631	0.0000	314.1662	314.1662	0.0964	0.0000	316.5755

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719
Total	9.0100e-003	5.1700e-003	0.0573	2.2000e-004	0.0292	1.6000e-004	0.0294	7.7600e-003	1.5000e-004	7.9100e-003	0.0000	19.6612	19.6612	4.3000e-004	0.0000	19.6719

3.6 Architectural Coating - 2028

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	0.6933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	0.7155	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180
Total	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180

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	0.6933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	0.7155	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180
Total	2.2500e-003	1.2900e-003	0.0143	5.0000e-005	7.3000e-003	4.0000e-005	7.3400e-003	1.9400e-003	4.0000e-005	1.9800e-003	0.0000	4.9153	4.9153	1.1000e-004	0.0000	4.9180

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.8672	0.0000	0.8672	0.2129	0.0000	0.2129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	952.00	991.00	862.00	2,697,446	2,697,446
Total	952.00	991.00	862.00	2,697,446	2,697,446

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
NaturalGas Unmitigated	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431

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					

Single Family Housing	2.33869e+006	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Total		0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431

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					
Single Family Housing	2.33869e+006	0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431
Total		0.0126	0.1078	0.0459	6.9000e-004		8.7100e-003	8.7100e-003		8.7100e-003	8.7100e-003	0.0000	124.8015	124.8015	2.3900e-003	2.2900e-003	125.5431

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	809588	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	809588	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628
Unmitigated	6.9999	0.1311	8.4871	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.2746	0.1225	7.7453	0.0140		1.0860	1.0860		1.0860	1.0860	103.2958	43.3207	146.6165	0.0953	8.1200e-003	151.4209
Landscaping	0.0223	8.5400e-003	0.7418	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2129	1.2129	1.1600e-003	0.0000	1.2419
Total	6.9999	0.1311	8.4872	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.2746	0.1225	7.7453	0.0140		1.0860	1.0860		1.0860	1.0860	103.2958	43.3207	146.6165	0.0953	8.1200e-003	151.4209
Landscaping	0.0223	8.5400e-003	0.7418	4.0000e-005		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003	0.0000	1.2129	1.2129	1.1600e-003	0.0000	1.2419
Total	6.9999	0.1311	8.4872	0.0141		1.0901	1.0901		1.0901	1.0901	103.2958	44.5336	147.8294	0.0965	8.1200e-003	152.6628

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.0670	0.2123	5.0100e-003	8.8685
Unmitigated	2.0670	0.2123	5.0100e-003	8.8685

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	6.5154 / 4.10754	2.0670	0.2123	5.0100e-003	8.8685
Total		2.0670	0.2123	5.0100e-003	8.8685

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Single Family Housing	6.5154 / 4.10754	2.0670	0.2123	5.0100e-003	8.8685
Total		2.0670	0.2123	5.0100e-003	8.8685

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.8027	1.4067	0.0000	58.9702
Unmitigated	23.8027	1.4067	0.0000	58.9702

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	117.26	23.8027	1.4067	0.0000	58.9702
Total		23.8027	1.4067	0.0000	58.9702

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	117.26	23.8027	1.4067	0.0000	58.9702
Total		23.8027	1.4067	0.0000	58.9702

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 10 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 10 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	100.00	Dwelling Unit	28.00	180,000.00	286

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Residential_Exterior	121500	0
tblAreaCoating	Area_Residential_Interior	364500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0

tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	132.00
tblConstructionPhase	NumDays	440.00	218.00
tblConstructionPhase	NumDays	45.00	130.00
tblConstructionPhase	NumDays	35.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	910.00	36.40
tblGrading	MaterialExported	0.00	385,049.00
tblGrading	MaterialImported	0.00	385,049.00
tblLandUse	LotAcreage	32.47	28.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00

tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	189.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	11.00	22.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	36.00	72.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	7.00	14.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2028	18.2911	168.5462	147.2963	0.3547	14.8770	4.9130	19.7901	7.2381	4.5424	11.7805	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9505
Maximum	18.2911	168.5462	147.2963	0.3547	14.8770	4.9130	19.7901	7.2381	4.5424	11.7805	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9505

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					
2028	18.2911	168.5462	147.2963	0.3547	6.8411	4.9130	11.7542	3.1032	4.5424	7.6456	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9504
Maximum	18.2911	168.5462	147.2963	0.3547	6.8411	4.9130	11.7542	3.1032	4.5424	7.6456	0.0000	35,454.9031	35,454.9031	8.6819	0.0000	35,671.9504

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.02	0.00	40.61	57.13	0.00	35.10	0.00	0.00	0.00	0.00	0.00	0.00

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	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Energy	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Mobile	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Total	157.2081	3.6741	197.4042	0.3465	5.1388	26.5806	31.7194	1.2613	26.5806	27.8419	2,777.1731	1,933.3700	4,710.5431	2.5916	0.2323	4,844.5467

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	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Energy	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Mobile	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Total	157.2081	3.6741	197.4042	0.3465	5.1388	26.5806	31.7194	1.2613	26.5806	27.8419	2,777.1731	1,933.3700	4,710.5431	2.5916	0.2323	4,844.5467

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description

1	Grading	Grading	1/1/2028	6/30/2028	5	130
2	Utilities	Trenching	2/1/2028	7/31/2028	5	130
3	Building Construction	Building Construction	3/1/2028	12/31/2028	5	218
4	Paving	Paving	7/1/2028	12/31/2028	5	132
5	Architectural Coating	Architectural Coating	7/1/2028	12/31/2028	5	132

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 36.4

Acres of Paving: 0

Residential Indoor: 364,500; Residential Outdoor: 121,500; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	189	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36

Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	96,262.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	72.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.1735	0.0000	13.1735	6.7786	0.0000	6.7786			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375		16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	13.1735	3.0843	16.2578	6.7786	2.8375	9.6161		16,645.5782	16,645.5782	5.3835		16,780.1662

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	0.7833	55.6774	8.3282	0.0798	0.3387	0.0145	0.3532	0.0942	0.0139	0.1080		8,858.9659	8,858.9659	0.9682		8,883.1701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	0.9202	55.7495	9.2715	0.0834	0.7988	0.0170	0.8158	0.2162	0.0162	0.2324		9,210.6047	9,210.6047	0.9758		9,234.9997

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.1377	0.0000	5.1377	2.6436	0.0000	2.6436			0.0000			0.0000
Off-Road	8.0586	72.5845	80.8198	0.1719		3.0843	3.0843		2.8375	2.8375	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662
Total	8.0586	72.5845	80.8198	0.1719	5.1377	3.0843	8.2220	2.6436	2.8375	5.4812	0.0000	16,645.5782	16,645.5782	5.3835		16,780.1662

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	0.7833	55.6774	8.3282	0.0798	0.3387	0.0145	0.3532	0.0942	0.0139	0.1080		8,858.9659	8,858.9659	0.9682	8,883.1701
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003	351.8296
Total	0.9202	55.7495	9.2715	0.0834	0.7988	0.0170	0.8158	0.2162	0.0162	0.2324		9,210.6047	9,210.6047	0.9758	9,234.9997

3.3 Utilities - 2028

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534

Total	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534
Total	0.0489	0.0258	0.3369	1.2600e-003	0.1643	8.9000e-004	0.1652	0.0436	8.2000e-004	0.0444		125.5853	125.5853	2.7300e-003		125.6534

3.4 Building Construction - 2028

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0418	1.5564	0.4558	5.5400e-003	0.1489	1.7400e-003	0.1507	0.0429	1.6600e-003	0.0445		601.6393	601.6393	0.0388		602.6085
Worker	0.1760	0.0928	1.2128	4.5300e-003	0.5915	3.2100e-003	0.5947	0.1569	2.9600e-003	0.1598		452.1070	452.1070	9.8100e-003		452.3524
Total	0.2179	1.6491	1.6686	0.0101	0.7404	4.9500e-003	0.7454	0.1998	4.6200e-003	0.2044		1,053.7463	1,053.7463	0.0486		1,054.9609

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0418	1.5564	0.4558	5.5400e-003	0.1489	1.7400e-003	0.1507	0.0429	1.6600e-003	0.0445		601.6393	601.6393	0.0388		602.6085
Worker	0.1760	0.0928	1.2128	4.5300e-003	0.5915	3.2100e-003	0.5947	0.1569	2.9600e-003	0.1598		452.1070	452.1070	9.8100e-003		452.3524
Total	0.2179	1.6491	1.6686	0.0101	0.7404	4.9500e-003	0.7454	0.1998	4.6200e-003	0.2044		1,053.7463	1,053.7463	0.0486		1,054.9609

3.5 Paving - 2028

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296
Total	0.1369	0.0721	0.9433	3.5200e-003	0.4600	2.5000e-003	0.4625	0.1220	2.3000e-003	0.1243		351.6388	351.6388	7.6300e-003		351.8296

3.6 Architectural Coating - 2028

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	10.6658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	11.0075	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574

Total	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574

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	10.6658					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	11.0075	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574
Total	0.0342	0.0180	0.2358	8.8000e-004	0.1150	6.3000e-004	0.1156	0.0305	5.8000e-004	0.0311		87.9097	87.9097	1.9100e-003		87.9574

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	5.1388	0.0000	5.1388	1.2613	0.0000	1.2613		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	952.00	991.00	862.00	2,697,446	2,697,446
Total	952.00	991.00	862.00	2,697,446	2,697,446

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
NaturalGas Unmitigated	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884

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					
Single Family Housing	6407.38	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Total		0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884

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					
Single Family Housing	6.40738	0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884
Total		0.0691	0.5905	0.2513	3.7700e-003		0.0477	0.0477		0.0477	0.0477		753.8089	753.8089	0.0145	0.0138	758.2884

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584
Unmitigated	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	3.8520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	153.0395	2.9887	188.9106	0.3423		26.4871	26.4871		26.4871	26.4871	2,777.1731	1,164.7059	3,941.8790	2.5629	0.2185	4,071.0475
Landscaping	0.2475	0.0949	8.2423	4.4000e-004		0.0457	0.0457		0.0457	0.0457		14.8552	14.8552	0.0142		15.2109
Total	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.8520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	153.0395	2.9887	188.9106	0.3423		26.4871	26.4871		26.4871	26.4871	2,777.1731	1,164.7059	3,941.8790	2.5629	0.2185	4,071.0475
Landscaping	0.2475	0.0949	8.2423	4.4000e-004		0.0457	0.0457		0.0457	0.0457		14.8552	14.8552	0.0142		15.2109
Total	157.1390	3.0836	197.1530	0.3427		26.5328	26.5328		26.5328	26.5328	2,777.1731	1,179.5611	3,956.7342	2.5771	0.2185	4,086.2584

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 11 Construction - San Diego Air Basin, Annual

Otay Ranch Resort Village Year 11 Construction

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	200.00	Room	16.40	290,400.00	0
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025

Utility Company

CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	155200	0
tblAreaCoating	Area_Nonresidential_Interior	465600	0

tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	300.00	218.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00

tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	0.00	22.60
tblGrading	MaterialExported	0.00	239,069.00
tblGrading	MaterialImported	0.00	239,069.00
tblLandUse	LotAcreage	6.67	16.40
tblLandUse	LotAcreage	0.46	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	51.00	102.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	128.00	256.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4684	1,510.4684	0.3021	0.0000	1,518.0213
Maximum	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4684	1,510.4684	0.3021	0.0000	1,518.0213

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					
2029	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4671	1,510.4671	0.3021	0.0000	1,518.0201
Maximum	1.5861	6.0409	8.3305	0.0170	0.3646	0.2407	0.6054	0.0986	0.2250	0.3236	0.0000	1,510.4671	1,510.4671	0.3021	0.0000	1,518.0201

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-7-2028	2-6-2029	0.0330	0.0330
2	2-7-2029	5-6-2029	1.3460	1.3460
3	5-7-2029	8-6-2029	2.1975	2.1975
4	8-7-2029	9-30-2029	1.5201	1.5201
		Highest	2.1975	2.1975

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Energy	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
Mobile	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	26.4903	0.0000	26.4903	1.5655	0.0000	65.6287
Water						0.0000	0.0000		0.0000	0.0000	2.0795	0.0000	2.0795	0.2136	5.0400e-003	8.9222

Total	1.3041	0.8331	0.7018	5.0000e-003	1.3614	0.0633	1.4248	0.3342	0.0633	0.3975	28.5699	906.9351	935.5050	1.7965	0.0217	986.8756

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Energy	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
Mobile	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	26.4903	0.0000	26.4903	1.5655	0.0000	65.6287
Water						0.0000	0.0000		0.0000	0.0000	2.0795	0.0000	2.0795	0.2136	5.0400e-003	8.9222
Total	1.3041	0.8331	0.7018	5.0000e-003	1.3614	0.0633	1.4248	0.3342	0.0633	0.3975	28.5699	906.9351	935.5050	1.7965	0.0217	986.8756

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2029	6/30/2024	5	0	
2	Utilities	Trenching	2/1/2029	7/31/2029	5	129	
3	Building Construction	Building Construction	3/1/2029	12/31/2029	5	218	
4	Paving	Paving	7/1/2029	12/31/2029	5	132	
5	Architectural Coating	Architectural Coating	7/1/2029	12/31/2029	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 465,600; Non-Residential Outdoor: 155,200; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38
Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	59,767.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	256.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.3 Utilities - 2029

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840
Total	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7097	194.7097	0.0630	0.0000	196.2840

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793
Total	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793

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	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838
Total	0.1028	0.8848	1.4897	2.2200e-003		0.0488	0.0488		0.0449	0.0449	0.0000	194.7095	194.7095	0.0630	0.0000	196.2838

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793

Total	3.0200e-003	1.7200e-003	0.0193	7.0000e-005	0.0103	5.0000e-005	0.0104	2.7500e-003	5.0000e-005	2.8000e-003	0.0000	6.7757	6.7757	1.4000e-004	0.0000	6.7793

3.4 Building Construction - 2029

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4913	503.4913	0.1182	0.0000	506.4455

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0212	0.7814	0.2393	2.7500e-003	0.0738	8.7000e-004	0.0747	0.0213	8.3000e-004	0.0221	0.0000	271.7396	271.7396	0.0180	0.0000	272.1903
Worker	0.0653	0.0372	0.4163	1.6200e-003	0.2238	1.1600e-003	0.2249	0.0595	1.0600e-003	0.0605	0.0000	146.5653	146.5653	3.0800e-003	0.0000	146.6423
Total	0.0866	0.8185	0.6556	4.3700e-003	0.2976	2.0300e-003	0.2996	0.0808	1.8900e-003	0.0827	0.0000	418.3048	418.3048	0.0211	0.0000	418.8326

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	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449
Total	0.2968	2.7053	3.4993	5.8500e-003		0.1145	0.1145		0.1077	0.1077	0.0000	503.4907	503.4907	0.1182	0.0000	506.4449

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0212	0.7814	0.2393	2.7500e-003	0.0738	8.7000e-004	0.0747	0.0213	8.3000e-004	0.0221	0.0000	271.7396	271.7396	0.0180	0.0000	272.1903
Worker	0.0653	0.0372	0.4163	1.6200e-003	0.2238	1.1600e-003	0.2249	0.0595	1.0600e-003	0.0605	0.0000	146.5653	146.5653	3.0800e-003	0.0000	146.6423
Total	0.0866	0.8185	0.6556	4.3700e-003	0.2976	2.0300e-003	0.2996	0.0808	1.8900e-003	0.0827	0.0000	418.3048	418.3048	0.0211	0.0000	418.8326

3.5 Paving - 2029

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	0.1657	1.4711	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5832	316.5832	0.0971	0.0000	319.0111
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1657	1.4711	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5832	316.5832	0.0971	0.0000	319.0111

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762
Total	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762

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	0.1657	1.4710	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5828	316.5828	0.0971	0.0000	319.0107
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1657	1.4710	2.3241	3.7000e-003		0.0684	0.0684		0.0635	0.0635	0.0000	316.5828	316.5828	0.0971	0.0000	319.0107

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762
Total	8.5800e-003	4.8900e-003	0.0547	2.1000e-004	0.0294	1.5000e-004	0.0296	7.8200e-003	1.4000e-004	7.9600e-003	0.0000	19.2661	19.2661	4.1000e-004	0.0000	19.2762

3.6 Architectural Coating - 2029

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	0.8924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932
Total	0.9148	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994
Total	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994

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	0.8924					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932
Total	0.9148	0.1501	0.2370	3.9000e-004		6.7500e-003	6.7500e-003		6.7500e-003	6.7500e-003	0.0000	33.4476	33.4476	1.8200e-003	0.0000	33.4932

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994

Total	7.9700e-003	4.5400e-003	0.0508	2.0000e-004	0.0273	1.4000e-004	0.0275	7.2600e-003	1.3000e-004	7.3900e-003	0.0000	17.8900	17.8900	3.8000e-004	0.0000	17.8994

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	1.3614	0.0000	1.3614	0.3342	0.0000	0.3342	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,634.00	1,638.00	1190.00	2,985,063	2,985,063
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	2,520.40	2,478.80	1,598.60	4,234,997	4,234,997

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206
NaturalGas Unmitigated	0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206

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					
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264

Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206

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					
Hotel	1.69506e+007	0.0914	0.8309	0.6980	4.9900e-003		0.0632	0.0632		0.0632	0.0632	0.0000	904.5511	904.5511	0.0173	0.0166	909.9264
Strip Mall	44600	2.4000e-004	2.1900e-003	1.8400e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.3800	2.3800	5.0000e-005	4.0000e-005	2.3942
Total		0.0916	0.8331	0.6998	5.0000e-003		0.0633	0.0633		0.0633	0.0633	0.0000	906.9312	906.9312	0.0174	0.0166	912.3206

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.76068e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	3.76068e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	251200	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Unmitigated	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Total	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003
Total	1.2125	2.0000e-005	2.0200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.9300e-003	3.9300e-003	1.0000e-005	0.0000	4.1900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mitigated	2.0795	0.2136	5.0400e-003	8.9222
Unmitigated	2.0795	0.2136	5.0400e-003	8.9222

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.07335 / 0.563706	1.6095	0.1653	3.9000e-003	6.9057
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		2.0795	0.2136	5.0400e-003	8.9221

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.07335 / 0.563706	1.6095	0.1653	3.9000e-003	6.9057
Strip Mall	1.48145 / 0.907986	0.4700	0.0483	1.1400e-003	2.0165
Total		2.0795	0.2136	5.0400e-003	8.9221

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.4903	1.5655	0.0000	65.6287
Unmitigated	26.4903	1.5655	0.0000	65.6287

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		26.4903	1.5655	0.0000	65.6287

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Strip Mall	21	4.2628	0.2519	0.0000	10.5609
Total		26.4903	1.5655	0.0000	65.6287

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Otay Ranch Resort Village Year 11 Construction - San Diego Air Basin, Summer

Otay Ranch Resort Village Year 11 Construction

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	200.00	Room	16.40	290,400.00	0
Strip Mall	20.00	1000sqft	1.00	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2025
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	155200	0
tblAreaCoating	Area_Nonresidential_Interior	465600	0

tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	132.00
tblConstructionPhase	NumDays	300.00	218.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	132.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDA	0.61	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	LHD2	5.3560e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MCY	5.8070e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MH	9.5000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9280e-003	0.00

tblFleetMix	OBUS	1.9280e-003	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	SBUS	7.6400e-004	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblFleetMix	UBUS	1.8230e-003	0.00
tblGrading	AcresOfGrading	0.00	22.60
tblGrading	MaterialExported	0.00	239,069.00
tblGrading	MaterialImported	0.00	239,069.00
tblLandUse	LotAcreage	6.67	16.40
tblLandUse	LotAcreage	0.46	1.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	367.00	361.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	402.00	400.00
tblOffRoadEquipment	HorsePower	78.00	80.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripNumber	51.00	102.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	128.00	256.00
tblTripsAndVMT	WorkerTripNumber	55.00	56.00
tblTripsAndVMT	WorkerTripNumber	26.00	52.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.0655	4.1645	0.0000	19,536.1784
Maximum	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.0655	4.1645	0.0000	19,536.1784

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					
2029	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.065	4.1645	0.0000	19,536.1784
Maximum	21.8895	70.8793	102.5324	0.1996	3.8450	2.9773	6.8222	1.0355	2.7786	3.8141	0.0000	19,432.0655	19,432.065	4.1645	0.0000	19,536.1784

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

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	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Energy	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
Mobile	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Total	7.1468	4.5651	3.8569	0.0274	8.1309	0.3470	8.4780	1.9958	0.3470	2.3428		5,477.9685	5,477.9685	0.1051	0.1004	5,510.5242

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	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Energy	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
Mobile	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Total	7.1468	4.5651	3.8569	0.0274	8.1309	0.3470	8.4780	1.9958	0.3470	2.3428		5,477.9685	5,477.9685	0.1051	0.1004	5,510.5242

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2029	6/30/2024	5	0	
2	Utilities	Trenching	2/1/2029	7/31/2029	5	129	
3	Building Construction	Building Construction	3/1/2029	12/31/2029	5	218	
4	Paving	Paving	7/1/2029	12/31/2029	5	132	
5	Architectural Coating	Architectural Coating	7/1/2029	12/31/2029	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 22.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 465,600; Non-Residential Outdoor: 155,200; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	4	8.00	162	0.38
Grading	Graders	2	8.00	174	0.41
Grading	Off-Highway Trucks	2	8.00	400	0.38

Grading	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Scrapers	6	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Utilities	Excavators	4	8.00	162	0.38
Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Utilities	Trenchers	2	8.00	80	0.50
Building Construction	Cranes	2	7.00	226	0.29
Building Construction	Forklifts	6	8.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Cement and Mortar Mixers	8	8.00	9	0.56
Paving	Pavers	4	8.00	125	0.42
Paving	Paving Equipment	4	8.00	130	0.36
Paving	Rollers	4	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	22	56.00	0.00	59,767.00	10.80	7.30	0.50	LD_Mix	HDT_Mix	HHDT
Utilities	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	18	256.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	22	56.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	52.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.3 Utilities - 2029

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	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955		3,327.6075	3,327.6075	1.0762		3,354.5129

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926
Total	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129
Total	1.5938	13.7180	23.0959	0.0344		0.7559	0.7559		0.6955	0.6955	0.0000	3,327.6075	3,327.6075	1.0762		3,354.5129

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926
Total	0.0462	0.0242	0.3195	1.2200e-003	0.1643	8.3000e-004	0.1651	0.0436	7.6000e-004	0.0443		122.1283	122.1283	2.5700e-003		122.1926

3.4 Building Construction - 2029

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878		5,091.7811	5,091.7811	1.1951		5,121.6573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1906	7.1281	2.0986	0.0255	0.6905	7.8600e-003	0.6984	0.1988	7.5200e-003	0.2063		2,777.0829	2,777.0829	0.1788		2,781.5518
Worker	0.5916	0.3094	4.0892	0.0157	2.1030	0.0106	2.1136	0.5578	9.7600e-003	0.5676		1,563.2416	1,563.2416	0.0329		1,564.0650
Total	0.7822	7.4376	6.1878	0.0412	2.7935	0.0185	2.8119	0.7566	0.0173	0.7739		4,340.3245	4,340.3245	0.2117		4,345.6168

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	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573
Total	2.7229	24.8194	32.1036	0.0537		1.0500	1.0500		0.9878	0.9878	0.0000	5,091.7811	5,091.7811	1.1951		5,121.6573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1906	7.1281	2.0986	0.0255	0.6905	7.8600e-003	0.6984	0.1988	7.5200e-003	0.2063		2,777.0829	2,777.0829	0.1788		2,781.5518
Worker	0.5916	0.3094	4.0892	0.0157	2.1030	0.0106	2.1136	0.5578	9.7600e-003	0.5676		1,563.2416	1,563.2416	0.0329		1,564.0650
Total	0.7822	7.4376	6.1878	0.0412	2.7935	0.0185	2.8119	0.7566	0.0173	0.7739		4,340.3245	4,340.3245	0.2117		4,345.6168

3.5 Paving - 2029

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701		5,327.8356	5,327.8356	1.6344		5,368.6951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392
Total	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392

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	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.5290	22.4587	35.4823	0.0566		1.0445	1.0445		0.9701	0.9701	0.0000	5,327.8355	5,327.8355	1.6344		5,368.6951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392
Total	0.1294	0.0677	0.8945	3.4300e-003	0.4600	2.3200e-003	0.4624	0.1220	2.1400e-003	0.1242		341.9591	341.9591	7.2000e-003		342.1392

3.6 Architectural Coating - 2029

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	13.6241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	13.9658	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007
Total	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007

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	13.6241					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	13.9658	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007
Total	0.1202	0.0629	0.8306	3.1800e-003	0.4272	2.1600e-003	0.4293	0.1133	1.9800e-003	0.1153		317.5335	317.5335	6.6900e-003		317.7007

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	8.1309	0.0000	8.1309	1.9958	0.0000	1.9958		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,634.00	1,638.00	1190.00	2,985,063	2,985,063
Strip Mall	886.40	840.80	408.60	1,249,935	1,249,935
Total	2,520.40	2,478.80	1,598.60	4,234,997	4,234,997

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Strip Mall	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729
NaturalGas Unmitigated	0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729

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					
Hotel	46440.1	0.5008	4.5530	3.8245	0.0273		0.3460	0.3460		0.3460	0.3460		5,463.5449	5,463.5449	0.1047	0.1002	5,496.0120
Strip Mall	122.192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729

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					
Hotel	46.4401	0.5008	4.5530	3.8245	0.0273		0.3460	0.3460		0.3460	0.3460		5,463.5449	5,463.5449	0.1047	0.1002	5,496.0120

Strip Mall	0.122192	1.3200e-003	0.0120	0.0101	7.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004		14.3755	14.3755	2.8000e-004	2.6000e-004	14.4609
Total		0.5021	4.5649	3.8345	0.0274		0.3469	0.3469		0.3469	0.3469		5,477.9204	5,477.9204	0.1050	0.1004	5,510.4729

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Unmitigated	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

Total	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.6426					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0600e-003	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513
Total	6.6446	2.0000e-004	0.0224	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0482	0.0482	1.3000e-004		0.0513

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C
Calculation of GHGs from Energy Use

Table C-1
Title 24 as of 2016 Homes - GHG Emission Calculations, Proposed Project

		lbs/year			
		CO2	CH4	N2O	CO2e
Model 1					
Total kWh	7130.0	2578.821	0.103813	0.021476	2587.816
Total Therms	355.0				
MMBTU	35.5	4176.471	0.080049	0.076569	4201.289
TOTAL		6755.292	0.183862	0.098044	6789.105
Number of Units	940				
Net GHG Emissions, Metric tpy		2881.114	0.078417	0.041816	2895.535
Model 2					
Total kWh	7286	2635.244	0.106084	0.021945	2644.436
Total Therms	397.1				
MMBTU	39.71	4671.765	0.089542	0.085649	4699.527
TOTAL		7307.009	0.195626	0.107594	7343.963
Number of Units	941				
Net GHG Emissions, Metric tpy		3119.735	0.083523	0.045938	3135.512
Total GHG Emissions, Metric tpy		6000.848	0.161939	0.087753	6031.047

lbs/kWh, assuming 60% RPS		
CO2	CH4	N2O
361.686	0.01456	0.003012

Table C-2
Title 24 as of 2016 Homes - GHG Emission Calculations, Optional Development Scenario

		lbs/year			
		CO2	CH4	N2O	CO2e
Model 1					
Total kWh	7130.0	2578.821	0.103813	0.021476	2587.816
Total Therms	355.0				
MMBTU	35.5	4176.471	0.080049	0.076569	4201.289
TOTAL		6755.292	0.183862	0.098044	6789.105
Number of Units	969				
Net GHG Emissions, Metric tpy		2969.999	0.080836	0.043106	2984.865
Model 2					
Total kWh	7286	2635.244	0.106084	0.021945	2644.436
Total Therms	397.1				
MMBTU	39.71	4671.765	0.089542	0.085649	4699.527
TOTAL		7307.009	0.195626	0.107594	7343.963
Number of Units	969				
Net GHG Emissions, Metric tpy		3212.564	0.086008	0.047304	3228.811
Total GHG Emissions, Metric tpy		6182.563	0.166844	0.09041	6213.677

lbs/kWh, assuming 50% RPS		
CO2	CH4	N2O
361.686	0.01456	0.003012

Table C-3
Net Zero Homes - GHG Emission Calculations, Proposed Project

		lbs/year			
		CO2	CH4	N2O	CO2e
Model 1					
Total kWh	7038.2	2545.621	0.102476	0.021199	2554.5
Total Therms	294.9				
MMBTU	29.48808	3469.186	0.066493	0.063602	3489.801
TOTAL		6014.807	0.168969	0.084801	6044.302
PV System	10106.9	3655.524	0.147156	0.030442	3668.275
Net GHG Emissions, lbs/yr		2359.283	0.021813	0.054359	2376.027
Number of Units	940				
Net GHG Emissions, Metric tpy		1006.228	0.009303	0.023184	1013.369
Model 2					
Total kWh	7086.96	2563.254	0.103186	0.021346	2572.195
Total Therms	337.8438				
MMBTU	33.78438	3974.633	0.07618	0.072868	3998.252
TOTAL		6537.887	0.179367	0.094214	6570.447
PV System	10269.9	3714.479	0.14953	0.030933	3727.435
Net GHG Emissions, lbs/yr		2823.408	0.029837	0.063281	2843.012
Number of Units	941				
Net GHG Emissions, Metric tpy		1205.457	0.012739	0.027018	1213.827
Total GHG Emissions, Metric tpy		2211.685	0.022042	0.050202	2227.196

lbs/kWh, assuming 50% RPS		
CO2	CH4	N2O
361.686	0.01456	0.003012

Table C-4
Net Zero Homes - GHG Emission Calculations, Optional Development Scenario

		lbs/year			
		CO2	CH4	N2O	CO2e
Model 1					
Total kWh	7038.2	2545.621	0.102476	0.021199	2554.5
Total Therms	294.9				
MMBTU	29.48808	3469.186	0.066493	0.063602	3489.801
TOTAL		6014.807	0.168969	0.084801	6044.302
PV System	10106.9	3655.524	0.147156	0.030442	3668.275
Net GHG Emissions, lbs/yr		2359.283	0.021813	0.054359	2376.027
Number of Units	969				
Net GHG Emissions, Metric tpy		1037.271	0.00959	0.023899	1044.632
Model 2					
Total kWh	7086.96	2563.254	0.103186	0.021346	2572.195
Total Therms	337.8438				
MMBTU	33.78438	3974.633	0.07618	0.072868	3998.252
TOTAL		6537.887	0.179367	0.094214	6570.447
PV System	10269.9	3714.479	0.14953	0.030933	3727.435
Net GHG Emissions, lbs/yr		2823.408	0.029837	0.063281	2843.012
Number of Units	969				
Net GHG Emissions, Metric tpy		1241.326	0.013118	0.027822	1249.945
Total GHG Emissions, Metric tpy		2278.597	0.022708	0.051721	2294.577

lbs/kWh, assuming 50% RPS		
CO2	CH4	N2O
361.686	0.01456	0.003012

Table C-5
GHG Emissions from Energy Use
Proposed Project with Project Design Features and Regulatory Compliance Measures

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use¹				
Condo/Townhouse	46.9747	2.05E-03	4.10E-04	47.15
Elementary School	43.1225	1.74E-03	3.60E-04	43.27
Government Office Building	22.0494	8.90E-04	1.80E-04	22.13
Hotel	616.9696	0.0248	5.14E-03	619.12
Retail	82.4227	3.32E-03	6.90E-04	82.71
TOTAL Electricity	811.5389	0.0328	0.00678	814.38
GHG Emissions from Natural Gas¹				
Condo/Townhouse	43.7489	8.40E-04	8.00E-04	44.01
Elementary School	15.8469	3.00E-04	2.90E-04	15.94
Government Office Building	10.7742	2.10E-04	2.00E-04	10.84
Hotel	904.5511	0.0173	0.0166	909.93
Retail	4.7601	9.00E-05	9.00E-05	4.79
TOTAL Natural Gas	979.6812	0.01874	0.01798	985.51
GHG Emissions from Electricity and Natural Gas for Single-Family Homes²				
Single-Family Housing	6000.848	0.161939	0.087753	6031.047
TOTAL GHG EMISSIONS	7792.068	0.213479	0.112513	7830.934

Table C-6
GHG Emissions from Energy Use
Optional Development Scenario with Project Design Features and Regulatory Compliance Measures

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use¹				
Elementary School	43.1225	1.74E-03	3.60E-04	43.27
Government Office Building	22.0494	8.90E-04	1.80E-04	22.13
Hotel	616.9696	0.0248	5.14E-03	619.12
Retail	41.2118	1.71E-03	3.40E-04	41.36
TOTAL Electricity	723.3533	0.02914	0.00602	725.8758
GHG Emissions from Natural Gas¹				
Elementary School	15.8469	3.00E-04	2.90E-04	15.94
Government Office Building	10.7742	2.10E-04	2.00E-04	10.84
Hotel	904.5511	0.0173	0.0166	909.93
Retail	2.38	5.00E-05	4.00E-05	2.39
TOTAL Natural Gas	933.5522	0.01786	0.01713	939.1034
GHG Emissions from Electricity and Natural Gas for Single-Family Homes²				
Single-Family Housing	6182.563	0.166844	0.09041	6213.677
TOTAL GHG EMISSIONS	7839.469	0.213844	0.11356	7878.656

Table C-7
GHG Emissions from Energy Use
Proposed Project with Mitigation

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use¹				
Condo/Townhouse	44.1272	1.78E-03	3.70E-04	44.28
Elementary School	38.7362	1.56E-03	3.20E-04	38.87
Government Office Building	20.3473	8.20E-04	1.70E-04	20.42
Hotel	554.6772	0.0223	4.62E-03	556.61
Retail	74.2133	2.99E-03	6.20E-04	74.47
TOTAL Electricity	732.1012	0.02945	0.0061	734.6553
GHG Emissions from Natural Gas¹				
Condo/Townhouse	40.6454	7.80E-04	7.50E-04	40.89
Elementary School	14.3907	2.80E-04	2.60E-04	14.48
Government Office Building	9.9209	1.90E-04	1.80E-04	9.98
Hotel	831.2975	0.0159	0.0152	836.22
Retail	4.5167	9.00E-05	8.00E-05	4.54
TOTAL Natural Gas	900.7712	0.01724	0.01647	906.1103
GHG Emissions from Electricity and Natural Gas for Single-Family Homes²				
Single-Family Housing	2211.685	0.022042	0.050202	2227.196
TOTAL GHG EMISSIONS	3844.557	0.068732	0.072772	3867.961

Table C-8
GHG Emissions from Energy Use
Optional Development Scenario with Mitigation

Land Use	CO2	CH4	N2O	CO2e
GHG Emissions from Electricity Use¹				
Elementary School	38.7362	1.56E-03	3.20E-04	38.87
Government Office Building	20.3473	8.20E-04	1.70E-04	20.42
Hotel	554.6772	0.0223	4.62E-03	556.61
Retail	37.1071	1.54E-03	3.10E-04	37.24
TOTAL Electricity	650.8678	0.02622	0.00542	653.1385
GHG Emissions from Natural Gas¹				
Elementary School	14.3907	2.80E-04	2.60E-04	14.48
Government Office Building	9.9209	1.90E-04	1.80E-04	9.98
Hotel	831.2975	0.0159	0.0152	836.22
Retail	2.2584	4.00E-05	4.00E-05	2.27
TOTAL Natural Gas	857.8675	0.01641	0.01568	862.9504
GHG Emissions from Electricity and Natural Gas for Single-Family Homes²				
Single-Family Housing	2278.597	0.022708	0.051721	2294.577
TOTAL GHG EMISSIONS	3787.332	0.065338	0.072821	3810.666

VILLAGE 13

Building Analysis



An estimation of annual energy use and PV production for two residential building prototypes designed to meet the 2016 California Energy Code and the California Energy Commission's Zero Net Energy definition from the 2015 Integrated Energy Policy Report.

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EXECUTIVE SUMMARY

This report examines two of the client’s single-family residential building designs that are representative prototypes for the proposed Village 13 development. The primary objective is to determine annual energy use when each home is configured with equipment options that: (i) will likely be used to meet the 2016 California Energy Code, and (ii) can be used to achieve the California Energy Commission’s (CEC) Zero Net Energy (ZNE) parameters, as defined in the 2015 Integrated Energy Policy Report (2015 IEPR). In conjunction with the latter exercise, this report determines the amount of rooftop PV that would be required for each design to reach ZNE. Annual energy use (in kWh and therms) was calculated for each building. Annual energy use consists of “regulated loads”—end uses covered by the California Building Energy Efficiency Standards (California Energy Code Title 24, Part 6)—and “unregulated loads”, which are not regulated by Title 24.

As indicated above, two building designs provided by the clients were considered in the analysis:

- 3,727 square foot, two-story single-family home; Residence 3
- 4,946 square foot, two-story single-family home; Residence 7

Residential Assessment

Methods and Assumptions

Each building was modeled using the CEC’s public-domain compliance software, known as CBECC-Res¹, to calculate code compliance and annual energy use. The residential buildings were assumed to be in Climate Zone 10 (Otay Ranch).

Site energy in kWh and therms was calculated for each home using prescriptive features, taken from the standard building design, that meet the 2016 California Energy Code. An additional option was calculated to meet the CEC’s ZNE definition in the 2015 IEPR. ConSol assumed that each ZNE home was 15%² more efficient than required by 2016 code, and incorporated enough on-site renewable energy so that the value of annual energy generation matches annual building energy consumption.

ConSol modeled each of the two residential buildings with “worst case” orientation in order to determine the minimum requirements to achieve code compliance in all building configurations. Features listed in Table 1 and Table 2 represent the features that were modeled in each calculation run. The feature selections were based on the approach to code-compliance (i.e. prescriptive or performance), feasibility and cost-effectiveness. The following approaches to compliance were used for the modeling runs:

- Run 1: Prescriptive approach where features are taken from the standard building design.
- Run 2: Performance approach to achieve ZNE.

¹ “CBECC Res” is shorthand for California Building Energy Code Compliance – Residential

² The increased efficiency above the 2016 code is intended to represent efficiency improvements likely to be included in a Zero Net Energy home design.

The first column in each table represents buildings designed to meet the 2016 code. The second column represents buildings designed to achieve ZNE by exceeding the 2016 code by 15% prior to the addition of the photovoltaic (PV) system necessary to reach ZNE. Features that are highlighted in yellow represent a change from the features listed in the prescriptive approach (Run 1).

TABLE 1: RESIDENCE 3 2016 CALIFORNIA ENERGY CODE AND ZNE COMPLIANCE OPTIONS

Village 13 - Plan 3 (5520 Model) Otay Ranch Climate Zone 10 3727 Sqft / 2-Story / 19.4% Glazing	2016 Building Features	ZNE Building Features
Run	Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), 14 SEER/12.2 EER HVAC &
File Number	1	4
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Compliance Margins		
Worst Case % Above Code (2016 Code)	4.1%	15.3%
Worst Case Margin Above Code (2016 Code) - kTDV	1.39	5.22
Proposed Design Budget	32.71	28.88
Envelope: Opaque Surfaces		
Wall Insulation - 2x4 Exterior Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Walls	R-21+R4	R-21+R4
Wall Insulation - 2x4 Interior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Interior Garage Walls	R-21	R-21
Wall Insulation - 2x4 Exterior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Garage Walls	R-0+R4	R-0+R4
Attic Insulation - Flat Portions	R-38	R-0
Attic Insulation - At Furnace Platform	R-21	R-0
Floor Insulation - Above Garage	R-19	R-19
Floor Insulation - Cantilever	R-19	R-19
Insulation Installation [Verification] - QII	N/A	Required
Air Infiltration [Testing] - Blower Door	5.0 ACH	5.0 ACH
Roofing Material	Tile	Tile
Roofing Properties (Reflectance / Emittance)	0.20 / 0.75	0.10 / 0.85
Below Roof Deck Insulation	R-13	R-38
Ventilated Attic (Yes / No)	Yes	No
Envelope: Glazing (U-Factor / SHGC)		
Horizontal Slider	0.32 / 0.25	0.32 / 0.25
Single Hung	0.32 / 0.25	0.32 / 0.25
Fixed	0.32 / 0.25	0.32 / 0.25
Patio Door	0.32 / 0.25	0.32 / 0.25
French Door	0.32 / 0.25	0.32 / 0.25
HVAC: Space Heating, Cooling Systems		
Space Heating Type	Furnace	Furnace
Space Heating Efficiency (AFUE)	0.80	0.80
Space Cooling Type	ACSplit	ACSplit
Space Cooling Efficiency (SEER / EER)	14 / 11.7	14 / 12.2
EER [Verification]	N/A	Required
Refrigerant Charge [Verification/Testing]	Required	Required
Fan Watt Draw [Testing]	0.58 W/cfm	0.58 W/cfm
Adequate Airflow [Testing]	350 cfm/ton	350 cfm/ton
Low Leakage Air Handler [Verification]	N/A	N/A
HVAC: Duct System		
Duct Insulation R-Value	R-8	R-6
Duct Location	Attic	Attic
Low Leakage (Tight) Ducts [Testing]	Required @ 5%	Required @ 5%
HVAC: Mechanical Ventilation		
Minimum Whole-House Ventilation, Continuous	82.27 cfm	82.27 cfm
Ventilation System Type	Exhaust	Exhaust
Ventilation System Efficiency (cfm / W/cfm)	82.27 / 0.25	82.27 / 0.25
Whole House Fan	Required	N/A
Water Heating		
Water Heater Type	Tankless	Tankless
Water Heater Efficiency (EF)	0.82	0.98
Fuel Source	Natural Gas	Natural Gas
Distribution Type	Standard	Standard

TABLE 2: RESIDENCE 7 2016 CALIFORNIA ENERGYCODE AND ZNE COMPLIANCE OPTIONS

Village 13 - Plan 7 (6020 Model) Otay Ranch Climate Zone 10 4946 Sqft / 2-Story / 17% Glazing	2016 Building Features	ZNE Building Features
Run	Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), .98 EF DHW, 14 SEER/12.2 EER HVAC, R-7.5 Door & QII
File Number	1	4
Software	CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
Compliance Margins		
Worst Case % Above Code (2016 Code)	1.1%	15.5%
Worst Case Margin Above Code (2016 Code) - kTDV	0.30	4.16
Proposed Design Budget	26.49	22.63
Envelope: Opaque Surfaces		
Wall Insulation - 2x4 Exterior Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Walls	R-21+R4	R-21+R4
Wall Insulation - 2x4 Interior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Interior Garage Walls	R-21	R-21
Insulated Entry Door(s)	N/A	R-7.5
Wall Insulation - 2x4 Exterior Garage Walls	N/A	N/A
Wall Insulation - 2x6 Exterior Garage Walls	R-0+R4	R-0+R4
Attic Insulation - Flat Portions	R-38	R-0
Attic Insulation - At Furnace Platform	R-21	R-0
Floor Insulation - Above Garage	R-19	R-19
Floor Insulation - Cantilever	R-19	R-19
Insulation Installation [Verification] - QII	N/A	Required
Air Infiltration [Testing] - Blower Door	5.0 ACH	5.0 ACH
Roofing Material	Tile	Tile
Roofing Properties (Reflectance / Emittance)	0.20 / 0.75	0.10 / 0.85
Below Roof Deck Insulation	R-13	R-38
Flat Roof cavity Insulation	R-30	R-30
Ventilated Attic (Yes / No)	Yes	No
HPAHERS Inspection	N/A	N/A
Horizontal Slider	0.32 / 0.25	0.31 / 0.22
Single Hung	0.32 / 0.25	0.31 / 0.22
Fixed	0.32 / 0.25	0.31 / 0.22
Patio Door	0.32 / 0.25	0.31 / 0.22
French Door	0.32 / 0.25	0.31 / 0.22
HVAC: Space Heating, Cooling Systems		
Space Heating Type	Furnace	Furnace
Space Heating Efficiency (AFUE)	0.80	0.80
Space Cooling Type	ACSplit	ACSplit
Space Cooling Efficiency (SEER / EER)	14 / 11.7	14 / 12.2
EER [Verification]	N/A	Required
Refrigerant Charge [Verification/Testing]	Required	Required
Fan Watt Draw [Testing]	0.58 W/cfm	0.58 W/cfm
Adequate Airflow [Testing]	350 cfm/ton	350 cfm/ton
HVAC: Duct System		
Duct Insulation R-Value	R-8	R-8
Duct Location	Attic	Attic
Low Leakage (Tight) Ducts [Testing]	Required @ 5%	Required @ 5%
HVAC: Mechanical Ventilation		
Minimum Whole-House Ventilation, Continuous	94.46 cfm	94.46 cfm
Ventilation System Type	Exhaust	Exhaust
Ventilation System Efficiency (cfm / W/cfm)	94.46 / 0.25	94.46 / 0.25
Whole House Fan	Required	N/A
Water Heating		
Water Heater Type	Tankless	Tankless
Water Heater Efficiency (EF)	0.82	0.98
Fuel Source	Natural Gas	Natural Gas
Distribution Type	Standard	Standard

TABLE 3: RESIDENCE 3 SITE ENERGY USES AND PV SIZING

Village 13 - Plan 3 (5520 Model) Otay Ranch Climate Zone 10 3727 Sqft / 2-Story / 19.4% Glazing		2016 Building Features	ZNE Building Features
<u>Run</u>		Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), 14 SEER/12.2 EER HVAC &
<u>File Number</u>		1	4
<u>Software</u>		CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
<u>Regulated Loads from CBECC Log File</u> <u>(Space Heating, Cooling & Water Heating)</u>			
kWh		1263.1	1166.6
Therms		338.9	278.4
<u>Unregulated Loads from CBECC Log File</u> <u>(Inside & Exterior Lighting, Appliance & Cook, Plug Loads)</u>			
Interior Lighting kWh		804.4	804.4
Appliance & Cooking kWh		2140.3	2144.4
Plug Load kWh		2716.7	2716.7
Exterior Lighting kWh		206.1	206.1
Appliance & Cooking Therms		16.5	16.5
Total kWh		7130.6	7038.2
Total Therms		355.4	294.9
Final EDR of Proposed Design w/ PV			-0.5
PV Sizing			6.1
PV Production kWh			9995.9
PV Production TDV			64.1
PV Production EDR			43.6
Proposed Design TDV			63.4
Proposed Design EDR			43.1

TABLE 4: RESIDENCE 7 SITE ENERGY USES AND PV SIZING

Village 13 - Plan 7 (6020 Model) Otay Ranch Climate Zone 10 4946 Sqft / 2-Story / 17% Glazing		2016 Building Features	ZNE Building Features
<u>Run</u>		Prescriptive (w/ 2x6 Walls)	HPW (2x6 wall), HPA (R-38 BN), .98 EF DHW, 14 SEER/12.2 EER HVAC, R-7.5 Door & QII
<u>File Number</u>		1	4
<u>Software</u>		CBECC-Res 2016.2.0 (857)	CBECC-Res 2016.2.0 (857)
<u>Regulated Loads from CBECC Log File</u> <u>(Space Heating, Cooling & Water Heating)</u>			
kWh		1321.4	1118.7
Therms		380.6	321.3
<u>Unregulated Loads from CBECC Log File</u> <u>(Inside & Exterior Lighting, Appliance & Cook, Plug Loads)</u>			
Interior Lighting kWh		882.0	882.0
Appliance & Cooking kWh		2137.3	2141.0
Plug Load kWh		2716.7	2716.7
Exterior Lighting kWh		228.6	228.6
Appliance & Cooking Therms		16.5	16.5
Total kWh		7286.0	7087.0
Total Therms		397.1	337.8
Final EDR of Proposed Design w/ PV			-0.2
PV Sizing			6.2
PV Production kWh			10234.4
PV Production TDV			49.3
PV Production EDR			38.6
Proposed Design TDV			49.1
Proposed Design EDR			38.4

PV Sizing and Placement to meet ZNE

Once the building models were completed to exceed the 2016 code by 15%, the PV systems were sized to bring the homes to ZNE. In accordance with the CEC's methodology, ConSol used CBECC software to determine the minimum required PV system to achieve ZNE under worst-case building orientation (but still assuming the PV system could be mounted to face south). CBECC uses an Energy Design Rating (EDR) to represent regulated and unregulated loads, as well as annual PV production, when demonstrating that a building is designed to reach ZNE. The EDR is based on Time Dependent Valuation (TDV) energy, which assigns greater value to electricity produced or consumed at peak periods. TDV and the associated EDR metric have been identified by the CEC as the appropriate means of demonstrating ZNE in California. In order for a building to reach ZNE, the PV EDR must be greater than the proposed design EDR.

ConSol used a standard PV system with an azimuth of 180° (South) to design the appropriate system for each roof layout. Per CBECC Res software, Residence 3 needed a 6.1 kW system while Residence 7 needed a 6.2 kW system, to reach ZNE.

ConSol selected roof layouts for each residence to determine if a system meeting the minimum PV output could be placed on the roof in each cardinal orientation. Residence 3 worst case design required a minimum of 9995.9 kWh of PV production per year to be ZNE while Residence 7 worst case design required a minimum of 10,234.4 kWh of PV production per year. A standard 270-watt panel (approx. 5.5 ft x 3.5 ft) and standard string inverter were used when calculating production and sizes. The client may use more efficient or different size PV panels to achieve a ZNE home as long as the minimum yearly PV production is achieved per residence type.

Each PV system was designed to achieve annual kwh production equal to or better than the required production required to meet ZNE. Our PV system designs suggest the best possible placement of the PV panels given the house facing either North, South, East or West. The roof layouts that were selected for the assessment consisted of multiple surfaces. To meet the minimum PV yearly production, some roof configurations needed panels to be installed on multiple roof planes. Some of these configurations required a larger PV system to achieve ZNE, as not all the panels could be faced South as in the best case PV calculations. In some instances, the design has PV arrays located over attic vent locations on the plans. A low profile vent may be located under the PV array, or the vent may be relocated to allow room for the PV system. California Fire Code was taken into consideration when designing the layout. Fire Code dictates that PV arrays must be a minimum of three feet from the ridge have one-and-a-half-foot clearance on each side of the array, as well as one-and-a-half-foot clearance from hips and valleys.

MODEL 3B (5:12 PITCH) - FIGURE 2

- **North facing house: Total system size = 7.02 kW (DC)**
 - (26) 270 watt panels, Total Est Annual production = 10,346 kwh
 - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
 - (6) panels facing south (180°), Est Annual Production = 2,624 kwh
- **South facing house: Total system size = 7.29 kW (DC)**
 - (27) 270 watt panels, Total Est Annual production = 10,328 kwh
 - (27) panels facing west (270°), Est Annual Production = 10,328 kwh
- **East facing house: Total system size = 6.48 kW (DC)**
 - (24) 270 watt panels, Total Est Annual production = 10,269 kwh
 - (24) panels facing south (180°) Est Annual production = 10,269 kwh
- **West facing house: Total system size = 6.21 kW (DC)**
 - (23) 270 watt panels, Total Est Annual production = 10,106 kwh
 - (23) panels facing south (180°) Est Annual production = 10,106 kwh

MODEL 3C (5:12 PITCH) - FIGURE 3

- **North facing house: Total system size = 7.56 kW (DC)**
 - (28) 270 watt panels, Total Est Annual production = 10,620 kwh
 - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
 - (8) panels facing east (90°), Est Annual Production = 2,898 kwh
- **South facing house: Total system size = 7.02 kW (DC)**
 - (26) 270 watt panels, Total Est Annual production = 10,346 kwh
 - (20) panels facing west (270°), Est Annual Production = 7,722 kwh
 - (6) panels facing south (180°), Est Annual Production = 2,624 kwh
- **East facing house: Total system size = 6.75 kW (DC)**
 - (25) 270 watt panels, Total Est Annual production = 10,668 kwh
 - (20) panels facing south (180°) Est Annual production = 8,737 kwh
 - (5) panels facing west (270°) Est Annual production = 1,931
- **West facing house: Total system size = 6.75 kW (DC)**
 - (25) 270 watt panels, Total Est Annual production = 10,668 kwh
 - (20) panels facing south (180°) Est Annual production = 8,737 kwh
 - (5) panels facing west (270°) Est Annual production = 1,931

MODEL 7B (6:12 PITCH) - FIGURE 4

- **North facing house: Total system size = 7.02 kW (DC)**
 - (26) 270 watt panels, Total Est Annual production = 10,397 kwh
 - (18) panels facing west (270°), Est Annual Production = 6,876 kwh
 - (8) panels facing south (180°), Est Annual Production = 3,521 kwh
- **South facing house: Total system size = 7.02 kW (DC)**
 - (26) 270 watt panels, Total Est Annual production = 10,397 kwh
 - (18) panels facing west (270°), Est Annual Production = 6,876 kwh
 - (8) panels facing south (180°), Est Annual Production = 3,521 kwh
- **East facing house: Total system size = 6.21 kW (DC)**
 - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
 - (23) panels facing south (180°) Est Annual production = 10,123 kwh
- **West facing house: Total system size = 6.21 kW (DC)**
 - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
 - (23) panels facing south (180°) Est Annual production = 10,123 kwh

MODEL 7C (6:12 PITCH) - FIGURE 5

- **North facing house: Total system size = 7.29 kW (DC)**
 - (27) 270 watt panels, Total Est Annual production = 10,314 kwh
 - (27) panels facing west (270°), Est Annual Production = 10,314 kwh
- **South facing house: Total system size = 7.02 kW (DC)**
 - (26) 270 watt panels, Total Est Annual production = 10,339 kwh
 - (19) panels facing west (270°), Est Annual Production = 7,258 kwh
 - (7) panels facing south (180°), Est Annual Production = 3,081 kwh
- **East facing house: Total system size = 6.48 kW (DC)**
 - (24) 270 watt panels, Total Est Annual production = 10,272 kwh
 - (19) panels facing south (180°) Est Annual production = 8,362 kwh
 - (5) panels facing west (270°) Est Annual Production = 1,910
- **West facing house: Total system size = 6.21 kW (DC)**
 - (23) 270 watt panels, Total Est Annual production = 10,123 kwh
 - (23) panels facing south (180°) Est Annual production = 10,123 kwh

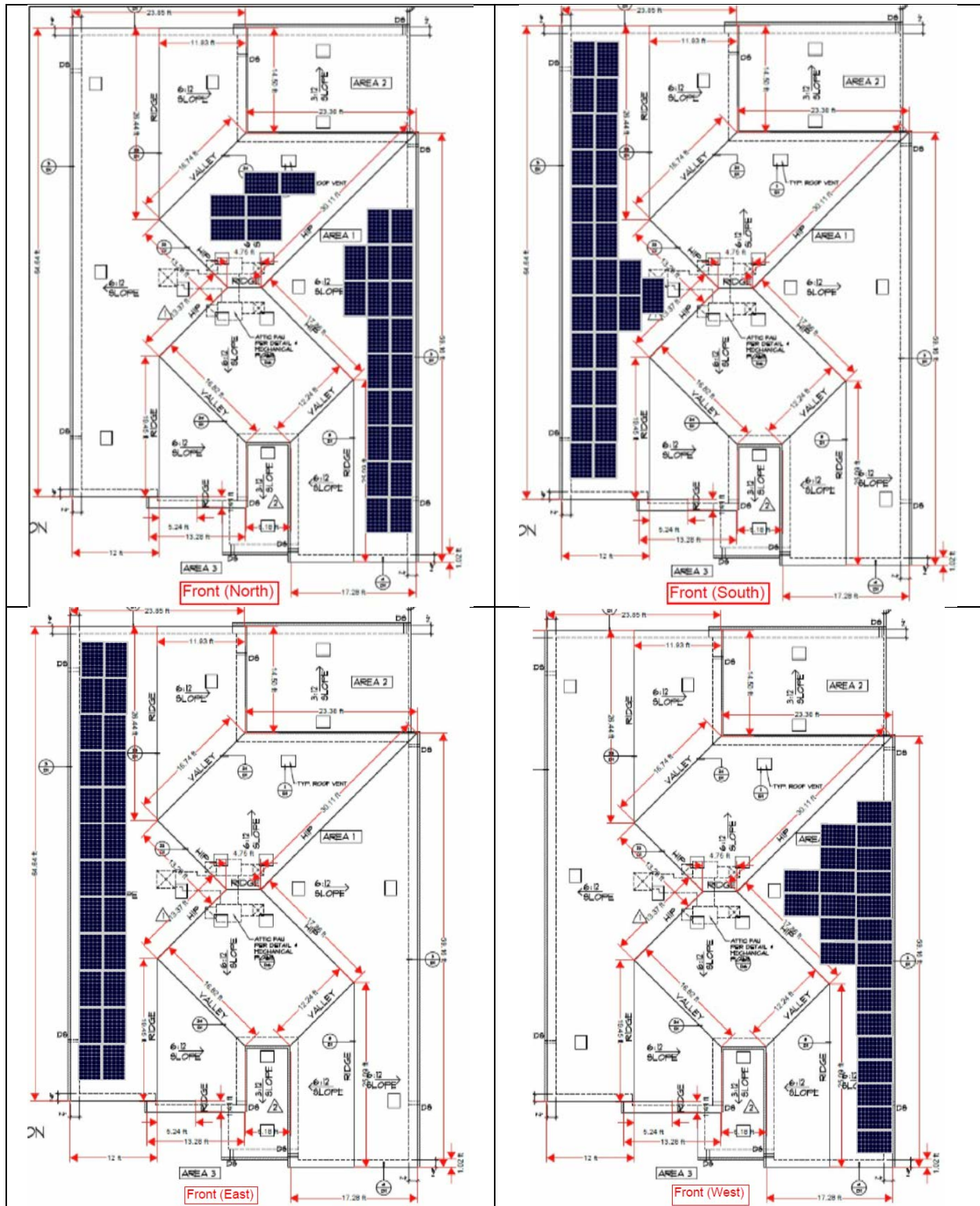


FIGURE 1: ROOF PLAN 3B - FRONT FACING NORTH, SOUTH, EAST AND WEST

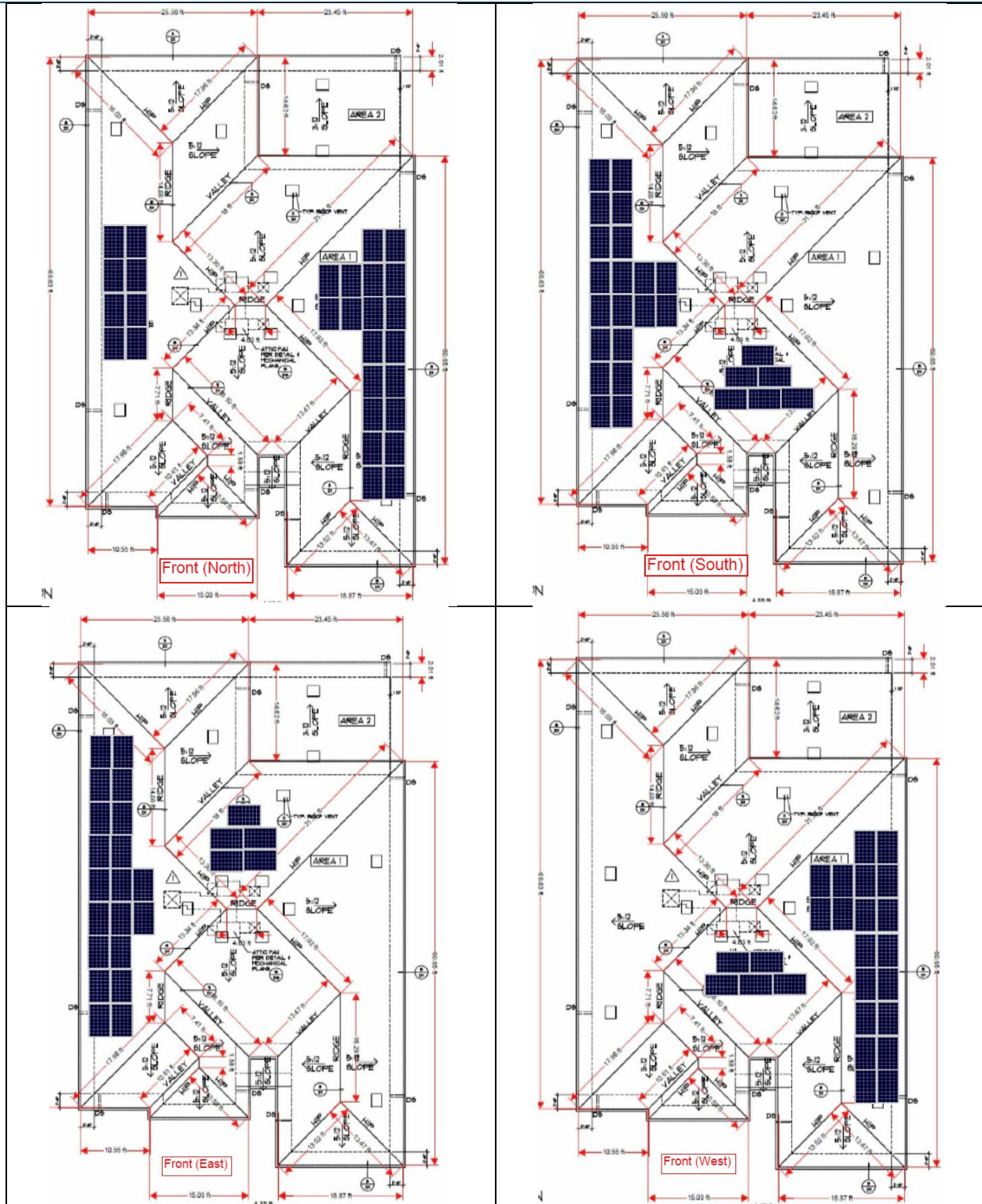
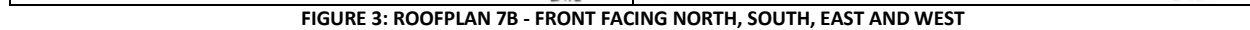


FIGURE 2: ROOF PLAN 3C - FRONT FACING NORTH, SOUTH, EAST AND WEST



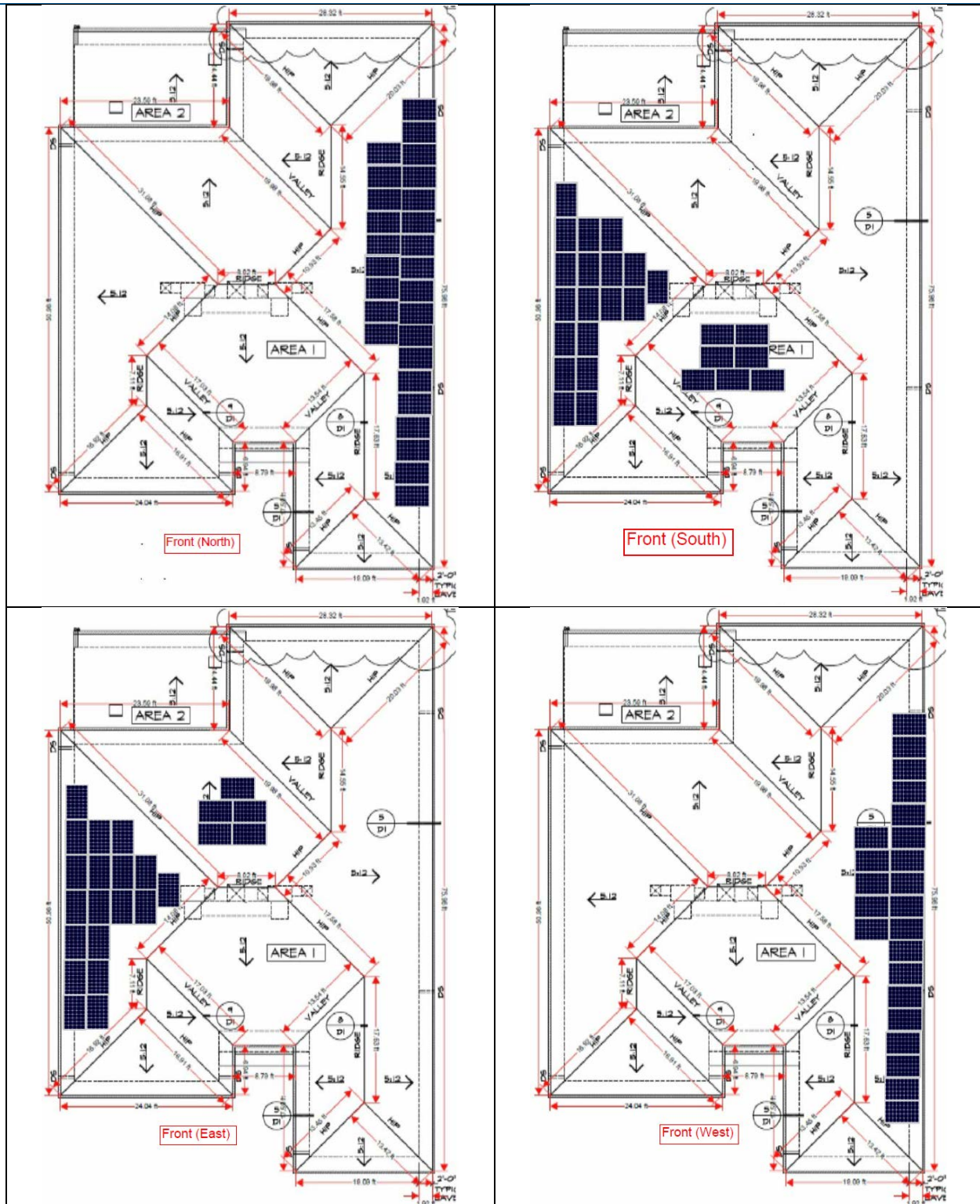


FIGURE 4: ROOF PLAN 7C - FRONT FACING NORTH, SOUTH, EAST AND WEST

Appendix D
Calculation of GHGs from Solid Waste Disposal

Solid Waste Generation and Diversion Rate Calculation

Based on information in the CalRecycle database, current statewide solid waste diversion rates are approximately 63% for residential uses and 65% for non-residential uses (included as Attachment A)¹. Based on information from the CalRecycle database, for unincorporated San Diego County for the year 2015 (included as Attachment B), single-family dwelling units disposed of a total of 98,338 tons of waste per year, and multi-family dwelling units disposed of a total of 25,509 tons of waste per year. CalRecycle reports a total of 130,333 occupied single-family dwelling units, and 34,495 occupied multi-family dwelling units within unincorporated San Diego County (included as Attachment B).² Based on these estimates, the disposal rate for single-family units would be 0.7545 tons per unit per year, and the disposal rate for multi-family units would be 0.7395 tons per unit per year. These disposal rates were used in the CalEEMod model instead of default solid waste disposal rates for the residential portion of the Project.

The CalRecycle database does not provide information on solid waste disposal rates based on non-residential square footage in the same manner that CalEEMod calculates variables. Therefore, the CalEEMod default values were used in this analysis. The diversion rates was assumed to be 65% based on statewide data.

To account for a 75% solid waste diversion rate, which will be achieved within the County by the Project's buildout year of 2030, the solid waste disposal rates and associated GHG emissions were reduced as follows: to reduce non-residential disposal rates from 35% to 25%, the additional diversion rate would be 28.6%. To reduce residential disposal rates from 37% to 25%, the additional diversion rate would be 32.4%.

Tables A and B present a summary of the solid waste disposal rates for the Otay Ranch Resort Village Project and the Optional Development Scenario, respectively, calculated as described above. These solid waste disposal rates were used in the CalEEMod model to calculate GHG emissions.

¹ <http://www.calrecycle.ca.gov/Igcentral/GoalMeasure/DisposalRate/Graphs/EstDiversio.htm>

² <https://www2.calrecycle.ca.gov/WasteCharacterization/ResidentialStreams>

Table A Solid Waste Disposal Rates Proposed Project	
Land Use	Waste Generation Rate, total tons
City Park	1.8207
Condo/Townhouse	28.4944
Elementary School	78.183
Government Office Building	6.64
Hotel	78.183
Single Family Housing	949.389
Strip Mall	29.988

Table B Solid Waste Disposal Rates Optional Development Scenario	
Land Use	Waste Generation Rate, total tons
City Park	1.8207
Elementary School	78.183
Government Office Building	6.64
Hotel	78.183
Single Family Housing	988.461
Strip Mall	29.988