Appendix D: Murrieta Canyon Academy Energy Analysis

Murrieta Canyon Academy

ENERGY ANALYSIS

CITY OF MURRIETA

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LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	Air Quality Impact Analysis
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Murrieta
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
DU	Dwelling Units
EIA	Energy Information Administration
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
I-215	Interstate 215
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Kilo-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks
MCA	Murrieta Canyon Academy

MCY	Motorcycles
MDV	Medium Duty Trucks
MH	Motor Homes
MHDT	Medium-Heavy Duty Trucks
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
MVUSD	Murrieta Valley Unified School District
OBUS	Other Buses
PG&E	Pacific Gas and Electric
Project	Murrieta Canyon Academy
PV	Photovoltaic
SBUS	School Buses
SCAB	Southern California Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
SoCalGas	Southern California Gas
sf	Square Feet
TEA-21	Transportation Equity Act for the 21st Century
UBUS	Urban Buses
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Murrieta Canyon Academy Energy Analysis* is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the 2019 California Environmental Quality Act (CEQA) Statute and Guidelines (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	5.0	*Less Than Significant*	*n/a*

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Murrieta Canyon Academy (Project). The purpose of this report is to ensure that energy implication is considered by the City of Murrieta (City), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed Murrieta Canyon Academy Project is located on the northeast corner of Hayes Avenue and Fullerton Road in the City of Murrieta, as shown on Exhibit 1-A. The area surrounding the Project Site includes residential to the east and south; Thompson Middle School field and Thompson Middle School to the west; and Murrieta Valley High School to the north.

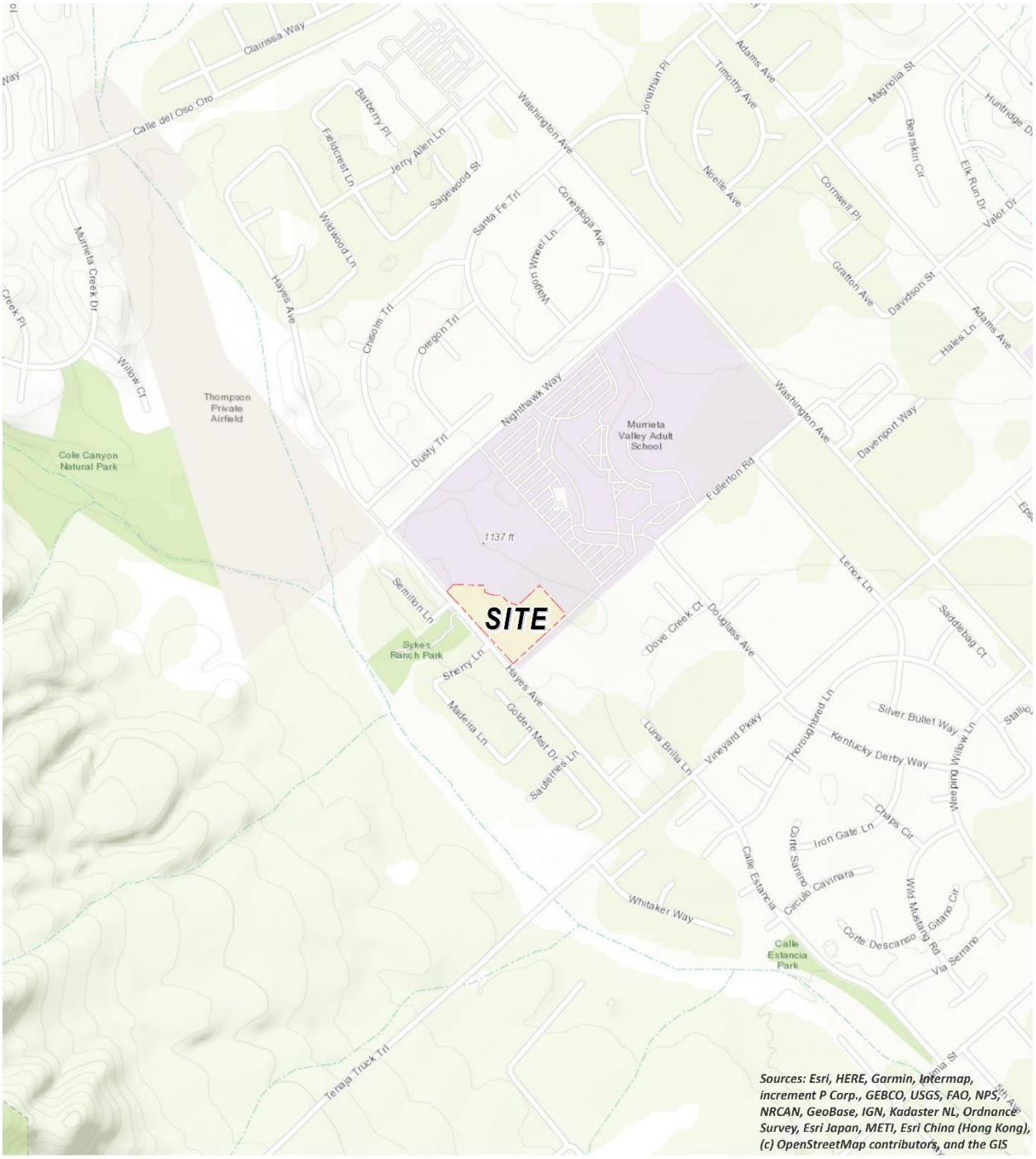
1.2 PROJECT DESCRIPTION

Murrieta Valley Unified School District (MVUSD) proposes to construct new buildings and associated infrastructure at the Murrieta Canyon Academy (MCA). MCA is an existing school campus consisting of portable structures that provides alternative high school programs including, independent study, alternative high school, and adult education. MVUSD proposes to construct a new campus with permanent single and two-story buildings and associated infrastructure and demolish the existing MCA buildings (Project). The site plan for the proposed Project is shown on Exhibit 1-B.

The proposed Project includes the construction of a new campus with approximately 41,500 square feet (sf) of classrooms and administrative offices, an associated parking lot, and other site improvements, to replace an existing campus of 22,500 sf of portable classrooms. More specifically, the new campus will include construction of single and two-story buildings with 22 classroom, student pavilion, library, restrooms, storage rooms, administration office, and various academic and activity courts with additional parking and landscaping. The proposed buildings are designed as single and two-story structures. All utilities exist to the Project site. The proposed Project will increase current enrollment capacity from 234 students to 594 students.

The Project is proposed to be constructed in the general location of the existing softball fields associated with Thompson Middle School, located immediately north-west of the existing MCA campus and south of the adjacent Thompson Middle School buildings. While the construction of the new buildings occurs, the existing buildings will remain in operation. Following the completion of the new buildings, anticipated to be during summer recess from school, the original buildings and parking lot will be demolished, and the new parking and associated landscape will be constructed.

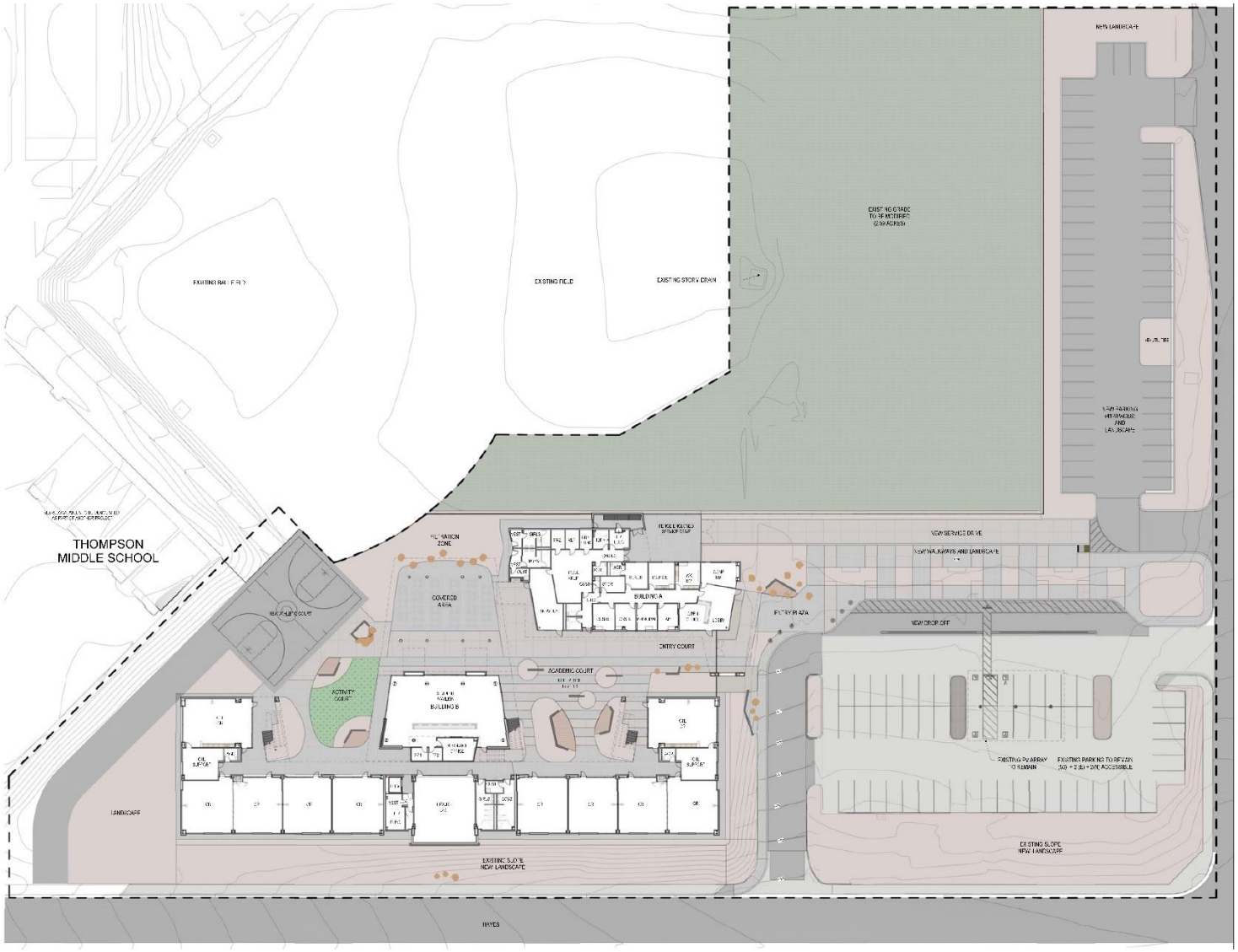
EXHIBIT 1-A: LOCATION MAP



LEGEND:

Site Boundary

EXHIBIT 1-B: SITE PLAN



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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption is from 2017 and natural gas consumption is from 2018, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2020 and included:

- Approximately 7,881 trillion British Thermal Unit (BTU) of energy was consumed;
- Approximately 683 million barrels of petroleum;
- Approximately 2,137 billion cubic feet of natural gas;
- Approximately 1 million short tons of coal (2)

The California Energy Commission's (CEC) Transportation Energy Demand Forecast 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting their projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030 (3)
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030 (3)
    - Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2017 (4)

The most recent data provided by the EIA for energy use in California by demand sector is from 2017 and is reported as follows:

- Approximately 40.3% transportation;
- Approximately 23.1% industrial;
- Approximately 18.0% residential; and
- Approximately 18.7% commercial (5)

In 2018, total system electric generation for California was 285,488 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 194,842 GWh which accounted for approximately 68% of the electricity it uses; the rest was imported from the Pacific Northwest (14%) and the U.S. Southwest (18%) (6). Natural gas is the main source for electricity generation at 47% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2018)

Fuel Type	California In-State Generation	Percent of California In-State	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	294	0.15%	399	8,740	9,433	3.30%
Large Hydro	22,096	11.34%	7,418	985	30,499	10.68%
Natural Gas	90,691	46.54%	49	8,904	99,644	34.91%
Nuclear	18,268	9.38%	0	7,573	25,841	9.05%
Oil	35	0.02%	0	0	35	0.01%
Other	430	0.22%	0	9	439	0.15%
Renewables	63,028	32.35%	14,074	12,400	89,502	31.36%
Biomass	5,909	3.03%	772	26	6,707	2.35%
Geothermal	11,528	5.92%	171	1,269	12,968	4.54%
Small Hydro	4,248	2.18%	334	1	4,583	1.61%
Solar	27,265	13.99%	174	5,094	32,533	11.40%
Wind	14,078	7.23%	12,623	6,010	32,711	11.46%
Unspecified Sources of Power	N/A	N/A	17,576	12,519	30,095	10.54%
Total	**194,842**	**100%**	**39,517**	**51,130**	**285,488**	**100%**

Source: https://www.energy.ca.gov/almanac/electricity_data/total_system_power.html

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2018. (7)
- California's total energy consumption is second highest in the nation, but, in 2018, the state's per capita energy consumption was the fourth-lowest, due in part to its mild climate and its energy efficiency programs. (8)
- In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.
- In 2018, large- and small-scale solar photovoltaic (PV) and solar thermal installations provided 19% of California's net electricity generation (9).

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and transportation fuel for vehicle trips associated with the uses planned for the Project.

2.2 ELECTRICITY

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies had revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (10). If the resource development outlined in the preliminary plan continues as detailed, reliability in Southern California would likely be assured; however, tight resource margins have led energy agencies and the California Air Resources Board (CARB) to develop a contingency plan. This contingency plan was discussed at a public workshop in Los Angeles on August 20, 2014 and is detailed within this Section (11).

Electricity is provided to the Project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (12).

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities [such as SCE] still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (13).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Table 2-2 identifies SCE's specific proportional shares of electricity sources in 2018. As indicated in Table 2-2, the 2018 SCE Power Mix has renewable energy at 36% of the overall energy resources. Geothermal resources are at 8%, wind power is at 13%, large hydroelectric sources are at 1%, solar energy is at 13%, and coal is at 0%. Biomass and waste sources have increased by 1% since 2017. Natural gas remains at 17% since 2017 (14).

TABLE 2-2: SCE 2018 POWER CONTENT MIX

Energy Resources	2018 SCE Power Mix
Eligible Renewable	**36%**
Biomass & waste	1%
Geothermal	8%
Small Hydroelectric	1%
Solar	13%
Wind	13%
Coal	**0%**
Large Hydroelectric	**4%**
Natural Gas	**17%**
Nuclear	**6%**
Other	**0%**
Unspecified Sources of power*	37%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The usage associated with natural gas use were calculated using the CalEEMod Version 2016.3.2. The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers, who accounted for approximately 32% of the natural gas delivered by California utilities in 2012. Large consumers, like electric generators and industrial customers, referred to as "noncore" customers, accounted for approximately 68% of the natural gas delivered by California utilities in 2012.

The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. In 2012, California customers received 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. California gas utilities may soon also begin receiving biogas into their pipeline systems.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California consumers are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Questar Southern Trails and Mojave Pipeline. Another pipeline, the North Baja – Baja Norte Pipeline, takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, the PUC often participates in FERC regulatory proceedings to represent the interests of California natural gas consumers.

Most of the natural gas transported via the interstate pipelines, as well as some of the California-produced natural gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered into the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large noncore customers take natural gas directly off the high-pressure backbone pipeline systems, while core customers and other noncore customers take natural gas off the utilities' distribution pipeline systems. The PUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82% of the total amount of natural gas delivered to California's gas consumers in 2012.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, and currently receive all of their natural gas from the SoCalGas system (Southwest Gas also

provides natural gas distribution service in the Lake Tahoe area). Some other municipal wholesale customers are the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Some of the natural gas delivered to California customers may be delivered directly to them without being transported over the regulated utility systems. For example, the Kern River/Mojave pipeline system can deliver natural gas directly to some large customers, "bypassing" the utilities' systems. Much of California-produced natural gas is also delivered directly to large consumers.

PG&E and SoCalGas own and operate several natural gas storage fields that are located in northern and southern California. These storage fields, and four independently owned storage utilities – Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage – help meet peak seasonal natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. (A portion of the Gill Ranch facility is owned by PG&E).

California's regulated utilities do not own any natural gas production facilities. All of the natural gas sold by these utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces." However, the PUC decides whether California's utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers." (15)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. In March 2018, the Department of Motor Vehicles (DMV) identified 35 million registered vehicles in California (16), and those vehicles (as noted previously) consume an estimated 19 billion gallons of fuel each year[1]. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 170,000 miles of highways and major roadways, more than 27 million passenger vehicles and light trucks, and almost 8 million medium- and heavy-duty vehicles (16). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 92% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (17). Nearly 19 billion

[1] Fuel consumptions estimated utilizing information from EMFAC2017.

gallons of on-highway fuel are burned each year, including 15.1 billion gallons of gasoline (including ethanol) and 3.9 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2016, Californians also used 194 million therms of natural gas as a transportation fuel (18), or the equivalent of 155 million gallons of gasoline.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is also presented in *italicized* text.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. *Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.*

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety*. The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.*

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a]). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2019 IEPR was adopted January 31, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as including the environmental performance of the electricity generation system, landscape-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, updates on Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the California Energy Demand Forecast (19). The 2020 IEPR Update is currently in progress but is not anticipated to be adopted until February 2021. *Electricity would be provided to the Project by SCE and natural gas is provided by SoCalGas. SCE's Clean Power and Electrification Pathway (CPEP) white paper and SoCalGas 2018 Corporate Sustainability Report builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2019 IEPR.*

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce VMT by developing educational uses on a civic/institutional-designated site. The Project therefore is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.*

3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative

mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the CEC and will become effective on January 1, 2020. The 2019 Title 24 standards go into effect on January 1, 2020 and are applicable to building permit applications submitted on or after that date. The 2019 Title 24 standards require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, update indoor and outdoor lighting for nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades (20). *The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and will become effective on January 1, 2020. It should be noted that the analysis herein assumes compliance with the 2019 Title 24 Standards.*

3.2.4 AB 1493 Pavley Regulations and Fuel Efficiency Standards.

California AB 1493, enacted on July 22, 2002, required ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption. *AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.*

3.2.5 California's Renewable Portfolio Standard (RPS).

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33 percent of total retail sales by 2020 (21). *California's Renewable Portfolio Standard is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.*

3.2.6 SB 350— Clean Energy and Pollution Reduction Act of 2015.

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition

and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

This measure is not directly applicable to development projects, but the proposed Project would use energy from Southern California Edison, which has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources.

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

In compliance with Appendix G of the *State CEQA Guidelines* (1), this report analyzes the project's anticipated energy use to determine if the Project would:

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

In addition, Appendix F of the *State CEQA Guidelines* (22), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.2 METHODOLOGY

Information from the California Emissions Estimator Model (CalEEMod) outputs for the *Murrieta Canyon Academy Air Quality Impact Analysis* (Urban Crossroads, Inc.) (AQIA) (23) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. (24). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Output from the annual construction and operational model runs are provided in Appendix 4.1.

4.2.2 EMISSION FACTORS MODEL

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2017 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of

analysis, the 2022 through 2023 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project.

4.2.3 CONSTRUCTION DURATION

The construction schedule utilized in the analysis, shown in Table 4-1, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[2] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*. The duration of construction activity was based on information provided by the Project Applicant and the opening year.

TABLE 4-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	08/01/2022	09/30/2022	45
Grading	08/01/2022	09/30/2022	45
Building Construction	10/01/2022	06/23/2023	190
Paving	05/28/2023	06/23/2023	20
Architectural Coating	05/28/2023	06/23/2023	20
Demolition	06/24/2023	08/04/2023	30

3.4.6 CONSTRUCTION EQUIPMENT

Site specific construction fleet may vary due to specific project needs at the time of construction. The associated construction equipment was generally based on CalEEMod defaults. A detailed summary of construction equipment assumptions by phase is provided at Table 4-2. Please refer to specific detailed modeling inputs/outputs contained in Appendix 4.1 of this energy study.

TABLE 4-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)

Phase Name	Equipment Type	Quantity	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	3	8
	Excavators	1	8
	Graders	1	8
	Rubber Tired Dozers	1	8

[2] As shown in the CalEEMod User's Guide Version 2016.3.2, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 4-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)

Phase Name	Equipment Type	Quantity	Hours Per Day
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	1	8
Paving	Cement and Mortar Mixers	2	8
	Crawler Tractors	1	8
	Pavers	1	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8

4.3 CONSTRUCTION ENERGY DEMANDS

4.3.1 CONSTRUCTION EQUIPMENT ELECTRICITY USAGE ESTIMATES

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project. Based on the *2017 National Construction Estimator*, Richard Pray (2017) (26), the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.32. For the proposed Project development, the Project plans to develop 41,500 square feet (sf) of classrooms and administrative offices, an associated parking lot, and other site improvements. Based on information provided in the AQIA, construction activities are anticipated to occur over the course of 12 months (23). Based on Table 4-3, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $1,155.36.

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2020, SCE's general service rate is $0.08 per kilowatt hours (kWh) of electricity (27). As shown on Table 4-4, the total electricity usage from on-site Project construction related activities is estimated to be approximately 14,461 kWh.

TABLE 4-3: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF of building construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Murrieta Canyon Academy	$2.32	41.500	12	$1,155.36
			CONSTRUCTION POWER COST	***$1,155.36***

TABLE 4-4: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Murrieta Canyon Academy	$0.08	14,461
CONSTURCTION ELECTRICTY USAGE (kWh)		***14,461***

4.3.2 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (28). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the City and region.

As presented in Table 4-5, Project construction activities would consume an estimated 70,624 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Site Preparation (45 days)	Crawler Tractors	212	4	8	0.43	2,917	7,096
	Rubber Tired Dozers	247	3	8	0.40	2,371	5,768
Grading (45 days)	Crawler Tractors	212	3	8	0.43	2,188	5,322
	Excavators	158	1	8	0.38	480	1,168
	Graders	187	1	8	0.41	613	1,492
	Rubber Tired Dozers	247	1	8	0.40	790	1,923
Building Construction (190 days)	Cranes	231	1	8	0.29	536	5,504
	Crawler Tractors	212	3	8	0.43	2,188	22,470
	Forklifts	89	3	8	0.20	427	4,387
	Generator Sets	84	1	8	0.74	497	5,107
	Welders	46	1	8	0.45	166	1,701
Paving (20 days)	Cement and Mortar Mixers	9	2	8	0.56	81	87
	Crawler Tractors	212	1	8	0.43	729	788
	Pavers	130	1	8	0.42	437	472
	Paving Equipment	132	2	8	0.36	760	822
	Rollers	80	2	8	0.38	486	526
Architectural Coating (20 days)	Air Compressors	78	1	8	0.48	300	324
Demolition (30 days)	Concrete/Industrial Saws	81	1	8	0.73	473	767
	Excavators	158	3	8	0.38	1,441	2,337
	Rubber Tired Dozers	247	2	8	0.40	1,581	2,563
TOTAL CONSTRUCTION PROCESS FUEL DEMAND (GALLONS DIESEL FUEL)							***70,624***

4.3.3 CONSTRUCTION WORKER FUEL ESTIMATES

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 271,142 VMT (23). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA were estimated using information generated within the 2017 version of the EMFAC developed by CARB. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (25). EMFAC2017 was run for the LDA vehicle class within the California sub-area for the 2022 and 2023 calendar year. Data from EMFAC2017 is shown in Appendix 4.2.

As generated by EMFAC2017, an aggregated fuel economy of LDAs ranging from model years 2022 and 2023 are estimated to have fuel efficiencies of 32.53 miles per gallon (mpg) and 33.56 mpg, respectively. Table 4-6 provides an estimated annual fuel consumption resulting from LDAs related to the Project construction worker trips. Based on Table 4-6, it is estimated that 8,174 gallons of fuel will be consumed related to construction worker trips during full construction of the Project. It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-6: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2022					
Site Preparation (45 days)	18	14.7	11,907	32.53	366
Grading (45 days)	15	14.7	9,923	32.53	305
Building Construction (65 days)	83	14.7	79,307	32.53	2,438
2023					
Building Construction (125 days)	83	14.7	152,513	33.56	4,544
Paving (20 days)	20	14.7	5,880	33.56	175
Architectural Coating (20 days)	17	14.7	4,998	33.56	149
Demolition (30 days)	15	14.7	6,615	33.56	197
PROJECT CONSTRUCTION WORKER FUEL CONSUMPTION					***8,174***

4.3.4 CONSTRUCTION VENDOR FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips would generate an estimated 776,952 VMT along area roadways for the Project (23). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% are from heavy-heavy duty trucks (HHDT), and 100% of all hauling trips are from HHDTs. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (23). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2017. EMFAC2017 was run for the LDA vehicle class within the California sub-area for the 2022 and 2023 calendar year. Data from EMFAC2017 is shown in Appendix 4.2.

As generated by EMFAC2017, an aggregated fuel economy of MHDTs ranging from model years 2022 and 2023 are estimated to have fuel efficiencies of 10.01 mpg and 10.35 mpg, respectively. Table 4-7 provides an estimated annual fuel consumption resulting from MHDTs related to the Project construction vendor trips. Based on Table 4-7, it is estimated that 2,050 gallons of fuel will be consumed related to MHDTs from construction vendor trips.

TABLE 4-7: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES – MHDT

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2022					
Building Construction (65 days)	16	6.9	7,176	10.01	717
2023					
Building Construction (125 days)	16	6.9	13,800	10.35	1,333
				PROJECT MHDT TOTAL	***2,050***

As generated by EMFAC2017, an aggregated fuel economy of HHDTs ranging from model years 2022 and 2023 are estimated to have fuel efficiencies of 7.10 mpg and 7.42 mpg, respectively. Table 4-8 provides an estimated annual fuel consumption resulting from HHDTs related to the Project construction vendor/hauling trips. Based on Table 4-8, it is estimated that 106,036 gallons of fuel will be consumed related to HHDTs from construction vendor/hauling trips.

TABLE 4-8: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES – HHDT (1 OF 2)

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Vendor					
2022					
Building Construction (65 days)	16	6.9	7,176	7.10	1,011

TABLE 4-8: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES – HHDT (2 OF 2)

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Vendor					
2023					
Building Construction (125 days)	16	6.9	13,800	7.42	1,860
Hauling					
2022					
Grading (45 days)	750	20	675,000	7.10	95,077
2023					
Demolition (30 days)	100	20	60,000	7.42	8,088
				PROJECT HHDT TOTAL	***106,036***

It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

4.3.5 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

The equipment used for Project construction would conform to CARB regulations and California emissions standards. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations and best available control measures (BACM). More specifically, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. To this end, "grading

plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Indirectly, construction energy efficiencies and energy conservation would be achieved for the proposed development through energy efficiencies realized from bulk purchase, transport and use of construction materials.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 Operational Energy Demands

4.4.1 Transportation Energy Demands

Energy that would be consumed by Proposed Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The following vehicle subcategories included in this analysis are consistent with CalEEMod and EMFAC.

Light-Duty Autos

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 2,175,813 annual VMT along area roadways for all LDAs with full build-out of the Project (23). Table 4-9 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on Table 4-9, it is estimated that 64,829 gallons of fuel will be consumed from Project generated LDA trips.

TABLE 4-9: PROJECT-GENERATED LDA VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
2,175,813	33.56	64,829

LIGHT-DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 143,772 annual VMT along area roadways for all Light-Duty Trucks (LDT1)[3] vehicles with full build-out of the Project (23). Table 4-10 provides an estimated range of annual fuel consumption resulting from Project generated LDT1s. Based on Table 4-10, it is estimated that 5,132 gallons of fuel will be consumed from Project generated LDT1 trips.

TABLE 4-10: PROJECT-GENERATED LDT1 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
143,772	28.01	5,132

Additionally, the Project would generate an estimated 741,260 annual VMT along area roadways for all LDT2[4] vehicles with full build-out of the Project (23). Table 4-11 provides an estimated range of annual fuel consumption resulting from Project generated LDT2s. Based on Table 4-11, it is estimated that 27,817 gallons of fuel will be consumed from Project generated LDT2 trips.

TABLE 4-11: PROJECT-GENERATED LDT2 VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
741,260	26.65	27,817

MEDIUM-DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 446,363 annual VMT along area roadways for all Medium-Duty Trucks (MDV) vehicles with full build-out of the Project (23). Table 4-12 provides an estimated range of annual fuel consumption resulting from Project generated MDVs. Based on Table 4-12, it is estimated that 20,956 gallons of fuel will be consumed from Project generated MDV trips.

TABLE 4-12: PROJECT-GENERATED MDV VEHICLE TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
446,363	21.30	20,956

LIGHT-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 56,652 annual VMT along

[3] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[4] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

area roadways for all Light-Heavy-Duty Trucks (LHDT1)[5] vehicles with full build-out of the Project (23). Table 4-13 provides an estimated range of annual fuel consumption resulting from Project generated LHDT1s. Based on Table 4-13, it is estimated that 3,915 gallons of fuel will be consumed from Project generated LHDT1 trips.

TABLE 4-13: PROJECT-GENERATED LHDT1 TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
56,652	14.47	3,915

Additionally, the Project would generate an estimated 19,061 annual VMT along area roadways for all LHDT2[6] vehicles with full build-out of the Project (23). Table 4-14 provides an estimated range of annual fuel consumption resulting from Project generated LHDT2s. Based on Table 4-14, it is estimated that 1,271gallons of fuel will be consumed from Project generated LHDT2 trips.

TABLE 4-14: PROJECT-GENERATED LHDT2 TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
19,061	14.99	1,271

MEDIUM-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 69,820 annual VMT along area roadways for all MHDTs with full build-out of the Project (23). Table 4-15 provides an estimated range of annual fuel consumption resulting from Project generated MHDTs. Based on Table 4-15, it is estimated that 6,744 gallons of fuel will be consumed from Project generated MHDT trips.

TABLE 4-15: PROJECT-GENERATED MHDT TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
69,820	10.35	6,744

HEAVY-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 278,160 annual VMT along area roadways for all HHDTs with full build-out of the Project (23). Table 4-16 provides an estimated range of annual fuel consumption resulting from Project generated HHDTs. Based on Table 4-16, it is estimated that 37,496 gallons of fuel will be consumed from Project generated HHDT trips.

[5] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.
[6] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

TABLE 4-16: PROJECT-GENERATED HHDT TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
278,160	7.42	37,496

OTHER BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 5,588 annual VMT along area roadways for all Other Buses (OBUS) with full build-out of the Project (23). Table 4-17 provides an estimated range of annual fuel consumption resulting from Project generated OBUS vehicles. Based on Table 4-17, it is estimated that 831 gallons of fuel will be consumed from Project generated OBUS trips.

TABLE 4-17: PROJECT-GENERATED OBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
5,588	6.73	831

URBAN BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 4,549 annual VMT along area roadways for all Urban Buses (UBUS) with full build-out of the Project (23). Table 4-18 provides an estimated range of annual fuel consumption resulting from Project generated UBUS vehicles. Based on Table 4-18, it is estimated that 909 gallons of fuel will be consumed from Project generated UBUS trips.

TABLE 4-18: PROJECT-GENERATED UBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
4,549	5.00	909

MOTORCYCLES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 17,879 annual VMT along area roadways for all Motorcycles (MCY) with full build-out of the Project (23). Table 4-19 provides an estimated range of annual fuel consumption resulting from Project generated MCY vehicles. Based on Table 4-19, it is estimated that 467 gallons of fuel will be consumed from Project generated MCY trips.

TABLE 4-19: PROJECT-GENERATED MCY TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
17,879	38.26	467

SCHOOL BUSES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 3,641 annual VMT along area roadways for all School Buses (SBUS) with full build-out of the Project (23). Table 4-20 provides an estimated range of annual fuel consumption resulting from Project generated SBUS vehicles. Based on Table 4-20, it is estimated that 449 gallons of fuel will be consumed from Project generated SBUS trips.

TABLE 4-20: PROJECT-GENERATED SBUS TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,641	8.10	449

MOTOR HOMES

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's AQIA, the Project would generate an estimated 3,562 annual VMT along area roadways for all Motor Homes (MH) with full build-out of the Project (23). Table 4-21 provides an estimated range of annual fuel consumption resulting from Project generated MH vehicles. Based on Table 4-21, it is estimated that 574 gallons of fuel will be consumed from Project generated MH trips.

TABLE 4-21: PROJECT-GENERATED MH TRAFFIC ANNUAL FUEL CONSUMPTION

Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
3,562	6.21	574

As summarized on Table 4-22 the Project will result in 3,966,119 annual VMT and an estimated annual fuel consumption of 171,391 gallons of fuel.

TABLE 4-22: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	2,175,813	64,829
LDT1	143,772	5,132
LDT2	741,260	27,817
MDV	446,363	20,956
LHDT1	56,652	3,915
LHDT2	19,061	1,271
MHDT	69,820	6,744
HHD T	278,160	37,496
OBUS	5,588	831
UBUS	4,549	909
MCY	17,879	467
SBUS	3,641	449
MH	3,562	574
TOTAL (ALL VEHICLES)	***3,966,119***	***171,391***

4.4.2 FACILITY ENERGY DEMANDS

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting (29). Non-building energy use, or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied to the Project by SCE. Annual natural gas and electricity demands of the Project are summarized in Table 4-23.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting (29). Non-building energy use, or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

TABLE 4-23: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Natural Gas Demand	kBTU/year
High School	276,805
Other Asphalt Surfaces	0
Other Non-Asphalt Surfaces	0
Parking Lot	0
TOTAL PROJECT NATURAL GAS DEMAND	***276,805***
Electricity Demand	**kWh/year**
High School	230,740
Other Asphalt Surfaces	0
Other Non-Asphalt Surfaces	0
Parking Lot	6,720
TOTAL PROJECT ELECTRICITY DEMAND	***237,460***

kBTU – kilo-British Thermal Units

4.4.3 Operational Energy Efficiency/Conservation Measures

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Standards Code).

It should also be noted that the Project would not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure because it would be served by the existing electric utility lines in the Project vicinity.

Enhanced Vehicle Fuel Efficiencies

Project annual fuel consumption estimates presented previously in Tables 4-22 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

4.5 Summary

4.5.1 Construction Energy Demands

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be around $1,155.36. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-, is calculated to be around 14,461 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 70,624 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 8,174 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDTs and HHDTs) will total approximately 108,036 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2019 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (19). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operational of the Project would result in an estimated 64,829 gallons of fuel consumption per year for LDAs, 5,132 gallons of fuel of LDT1s, 27,817 gallons of fuel for LDT2s, 20,956 gallons for fuel for MDVs, 3,915 gallons of fuel for LHDT1s, 1,271 gallons of fuel for LHDT2s, 6,744 gallons of fuel for MHDTs, 37,496 gallons for fuel for HHDTs, 831 gallons of fuel of OBUS, 909 gallons of fuel for UBUS, 467 gallons for fuel for MCYs, 449 gallons of fuel for SBUS, and 574 gallons of fuel for MHs. The total estimated annual fuel consumption from Project generated VMT would result in a fuel demand 171,391 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017); and CalEEMod. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region,

acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 276,805 kBTU/year of natural gas; and 237,460 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project proposes conventional residential and commercial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other projects of similar scale and configuration.

Additionally, the Project is will be required to comply with the applicable Title 24 standards which will further ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

***Energy Impact-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation*.**

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

***Energy Impact-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency*.**

The proposed Project is subject to California Building Code requirements. New buildings must achieve compliance with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements.

The Project would provide for, and promote, energy efficiencies equal to or beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other residential and commercial uses of similar scale and intensity that are constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Murrieta Canyon Academy. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 4.1:

CALEEMOD ANNUAL CONSTRUCTION EMISSIONS MODEL OUTPUTS

Murrieta Canyon Academy (Unmitigated)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	41.50	1000sqft	0.95	41,500.00	0
Other Asphalt Surfaces	0.53	Acre	0.53	23,086.80	0
Other Non-Asphalt Surfaces	2.59	Acre	2.59	112,820.40	0
Parking Lot	48.00	Space	0.44	19,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Murrieta Canyon Academy (Unmitigated) - Riverside-South Coast County, Annual

Project Characteristics -

Land Use - Total Project Area analyzed is 4.51 acres. The existing parking area (approximately 0.49 acres) in the southern portion of the site will remain and has been excluded from this anlaysis.

Construction Phase - Constructure schedule based on 2023 Opening Year and information provided by the Project Applicant.

Off-road Equipment - Hours are based on an 8-hour workday.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment -

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Off-road Equipment - Crawler Tractors used in lieu of Tractors/Loaders/Backhoes.

Trips and VMT - Per information provided by the Project Applicant, demolition activities will result in 100 truck trips.

Demolition -

Grading - It is assumed that 5 acres can be graded per day

Architectural Coating - Rule 1113

Vehicle Trips - Based on information provided in the Murrieta Canyon Academy Expansion Traffic Impact Study by RK Engineering Grounp, Inc.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 30% less energy for nonresidential uses

Construction Off-road Equipment Mitigation - Rule 403

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tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.3560e-003	2.4740e-003
tblVehicleEF	LDA	5.6100e-004	5.1000e-004
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.09	0.09
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDA	3.7650e-003	2.1830e-003
tblVehicleEF	LDA	3.6350e-003	0.04
tblVehicleEF	LDA	0.62	0.70

tblVehicleEF	LDA	0.85	1.77
tblVehicleEF	LDA	256.22	271.87
tblVehicleEF	LDA	54.50	51.08
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	1.5540e-003	1.3060e-003
tblVehicleEF	LDA	2.2370e-003	1.7590e-003
tblVehicleEF	LDA	1.4310e-003	1.2030e-003
tblVehicleEF	LDA	2.0570e-003	1.6170e-003
tblVehicleEF	LDA	0.09	0.12
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.06	0.09
tblVehicleEF	LDA	9.4470e-003	8.0120e-003
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.05	0.17
tblVehicleEF	LDA	2.5670e-003	2.6900e-003
tblVehicleEF	LDA	5.5900e-004	5.0600e-004
tblVehicleEF	LDA	0.09	0.12
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.06	0.09
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.20
tblVehicleEF	LDA	0.05	0.18
tblVehicleEF	LDA	3.2080e-003	1.8500e-003
tblVehicleEF	LDA	4.3060e-003	0.05
tblVehicleEF	LDA	0.48	0.54
tblVehicleEF	LDA	0.98	2.05
tblVehicleEF	LDA	229.53	244.11

tblVehicleEF	LDA	54.50	51.61
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	1.5540e-003	1.3060e-003
tblVehicleEF	LDA	2.2370e-003	1.7590e-003
tblVehicleEF	LDA	1.4310e-003	1.2030e-003
tblVehicleEF	LDA	2.0570e-003	1.6170e-003
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	8.0650e-003	6.8540e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2980e-003	2.4150e-003
tblVehicleEF	LDA	5.6100e-004	5.1100e-004
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	9.9700e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	9.2940e-003	5.9940e-003
tblVehicleEF	LDT1	0.01	0.07
tblVehicleEF	LDT1	1.18	1.28
tblVehicleEF	LDT1	2.73	2.25
tblVehicleEF	LDT1	295.40	299.04
tblVehicleEF	LDT1	68.37	62.77
tblVehicleEF	LDT1	0.11	0.11

tblVehicleEF	LDT1	2.2770e-003	1.9220e-003
tblVehicleEF	LDT1	3.3510e-003	2.5350e-003
tblVehicleEF	LDT1	2.0960e-003	1.7690e-003
tblVehicleEF	LDT1	3.0820e-003	2.3310e-003
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.30	0.23
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.18	0.74
tblVehicleEF	LDT1	0.19	0.35
tblVehicleEF	LDT1	2.9680e-003	2.9590e-003
tblVehicleEF	LDT1	7.3100e-004	6.2100e-004
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.30	0.23
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.18	0.74
tblVehicleEF	LDT1	0.21	0.39
tblVehicleEF	LDT1	0.01	6.7740e-003
tblVehicleEF	LDT1	0.01	0.06
tblVehicleEF	LDT1	1.43	1.55
tblVehicleEF	LDT1	2.40	1.99
tblVehicleEF	LDT1	320.93	322.22
tblVehicleEF	LDT1	68.37	62.22
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	2.2770e-003	1.9220e-003
tblVehicleEF	LDT1	3.3510e-003	2.5350e-003

tblVehicleEF	LDT1	2.0960e-003	1.7690e-003
tblVehicleEF	LDT1	3.0820e-003	2.3310e-003
tblVehicleEF	LDT1	0.36	0.37
tblVehicleEF	LDT1	0.37	0.28
tblVehicleEF	LDT1	0.24	0.25
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.18	0.74
tblVehicleEF	LDT1	0.16	0.31
tblVehicleEF	LDT1	3.2270e-003	3.1890e-003
tblVehicleEF	LDT1	7.2500e-004	6.1600e-004
tblVehicleEF	LDT1	0.36	0.37
tblVehicleEF	LDT1	0.37	0.28
tblVehicleEF	LDT1	0.24	0.25
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.18	0.74
tblVehicleEF	LDT1	0.18	0.34
tblVehicleEF	LDT1	8.9360e-003	5.7650e-003
tblVehicleEF	LDT1	0.01	0.07
tblVehicleEF	LDT1	1.11	1.19
tblVehicleEF	LDT1	2.78	2.30
tblVehicleEF	LDT1	287.77	292.00
tblVehicleEF	LDT1	68.37	62.89
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	2.2770e-003	1.9220e-003
tblVehicleEF	LDT1	3.3510e-003	2.5350e-003
tblVehicleEF	LDT1	2.0960e-003	1.7690e-003
tblVehicleEF	LDT1	3.0820e-003	2.3310e-003

tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.33	0.25
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.02	0.03
tblVehicleEF	LDT1	0.21	0.85
tblVehicleEF	LDT1	0.19	0.36
tblVehicleEF	LDT1	2.8910e-003	2.8900e-003
tblVehicleEF	LDT1	7.3200e-004	6.2200e-004
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.33	0.25
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.21	0.85
tblVehicleEF	LDT1	0.21	0.40
tblVehicleEF	LDT2	4.7540e-003	3.3780e-003
tblVehicleEF	LDT2	5.7630e-003	0.06
tblVehicleEF	LDT2	0.68	0.83
tblVehicleEF	LDT2	1.27	2.55
tblVehicleEF	LDT2	330.23	314.65
tblVehicleEF	LDT2	76.02	66.37
tblVehicleEF	LDT2	0.06	0.07
tblVehicleEF	LDT2	1.6020e-003	1.3640e-003
tblVehicleEF	LDT2	2.3660e-003	1.8030e-003
tblVehicleEF	LDT2	1.4730e-003	1.2560e-003
tblVehicleEF	LDT2	2.1760e-003	1.6580e-003
tblVehicleEF	LDT2	0.06	0.10
tblVehicleEF	LDT2	0.10	0.13

tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.41
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.3070e-003	3.1130e-003
tblVehicleEF	LDT2	7.8100e-004	6.5700e-004
tblVehicleEF	LDT2	0.06	0.10
tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.41
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LDT2	5.3890e-003	3.8410e-003
tblVehicleEF	LDT2	5.0030e-003	0.05
tblVehicleEF	LDT2	0.83	1.02
tblVehicleEF	LDT2	1.13	2.26
tblVehicleEF	LDT2	359.32	336.75
tblVehicleEF	LDT2	76.02	65.79
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	1.6020e-003	1.3640e-003
tblVehicleEF	LDT2	2.3660e-003	1.8030e-003
tblVehicleEF	LDT2	1.4730e-003	1.2560e-003
tblVehicleEF	LDT2	2.1760e-003	1.6580e-003
tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.10	0.15
tblVehicleEF	LDT2	0.01	0.02

tblVehicleEF	LDT2	0.06	0.41
tblVehicleEF	LDT2	0.07	0.25
tblVehicleEF	LDT2	3.6000e-003	3.3320e-003
tblVehicleEF	LDT2	7.7900e-004	6.5100e-004
tblVehicleEF	LDT2	0.12	0.20
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.10	0.15
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.41
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LDT2	4.5710e-003	3.2420e-003
tblVehicleEF	LDT2	5.9350e-003	0.06
tblVehicleEF	LDT2	0.63	0.78
tblVehicleEF	LDT2	1.30	2.62
tblVehicleEF	LDT2	321.50	307.92
tblVehicleEF	LDT2	76.02	66.50
tblVehicleEF	LDT2	0.06	0.07
tblVehicleEF	LDT2	1.6020e-003	1.3640e-003
tblVehicleEF	LDT2	2.3660e-003	1.8030e-003
tblVehicleEF	LDT2	1.4730e-003	1.2560e-003
tblVehicleEF	LDT2	2.1760e-003	1.6580e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.47
tblVehicleEF	LDT2	0.08	0.29

tblVehicleEF	LDT2	3.2190e-003	3.0460e-003
tblVehicleEF	LDT2	7.8200e-004	6.5800e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.47
tblVehicleEF	LDT2	0.09	0.32
tblVehicleEF	LHD1	4.9950e-003	4.6360e-003
tblVehicleEF	LHD1	8.5970e-003	4.3560e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.81	0.59
tblVehicleEF	LHD1	2.14	0.90
tblVehicleEF	LHD1	9.25	9.30
tblVehicleEF	LHD1	596.36	623.59
tblVehicleEF	LHD1	29.33	10.19
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.91	1.31
tblVehicleEF	LHD1	9.6600e-004	9.8800e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8650e-003
tblVehicleEF	LHD1	7.9000e-004	2.1400e-004
tblVehicleEF	LHD1	9.2400e-004	9.4600e-004
tblVehicleEF	LHD1	2.5590e-003	2.5060e-003
tblVehicleEF	LHD1	0.01	9.4190e-003
tblVehicleEF	LHD1	7.2700e-004	1.9700e-004

tblVehicleEF	LHD1	3.6750e-003	2.8510e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8430e-003	1.4280e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.31	0.45
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0650e-003
tblVehicleEF	LHD1	3.3400e-004	1.0100e-004
tblVehicleEF	LHD1	3.6750e-003	2.8510e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8430e-003	1.4280e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.31	0.45
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	4.9950e-003	4.6470e-003
tblVehicleEF	LHD1	8.7610e-003	4.4230e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.82	0.60
tblVehicleEF	LHD1	2.04	0.86
tblVehicleEF	LHD1	9.25	9.30
tblVehicleEF	LHD1	596.36	623.61
tblVehicleEF	LHD1	29.33	10.11
tblVehicleEF	LHD1	0.09	0.08

tblVehicleEF	LHD1	1.80	1.24
tblVehicleEF	LHD1	9.6600e-004	9.8800e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8650e-003
tblVehicleEF	LHD1	7.9000e-004	2.1400e-004
tblVehicleEF	LHD1	9.2400e-004	9.4600e-004
tblVehicleEF	LHD1	2.5590e-003	2.5060e-003
tblVehicleEF	LHD1	0.01	9.4190e-003
tblVehicleEF	LHD1	7.2700e-004	1.9700e-004
tblVehicleEF	LHD1	6.8550e-003	5.3200e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4810e-003	2.7140e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.32	0.46
tblVehicleEF	LHD1	0.22	0.06
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0650e-003
tblVehicleEF	LHD1	3.3200e-004	1.0000e-004
tblVehicleEF	LHD1	6.8550e-003	5.3200e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.4810e-003	2.7140e-003
tblVehicleEF	LHD1	0.09	0.06
tblVehicleEF	LHD1	0.32	0.46
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	4.9950e-003	4.6350e-003

tblVehicleEF	LHD1	8.5850e-003	4.3480e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.81	0.59
tblVehicleEF	LHD1	2.14	0.90
tblVehicleEF	LHD1	9.25	9.30
tblVehicleEF	LHD1	596.36	623.59
tblVehicleEF	LHD1	29.33	10.19
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.89	1.30
tblVehicleEF	LHD1	9.6600e-004	9.8800e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	9.8650e-003
tblVehicleEF	LHD1	7.9000e-004	2.1400e-004
tblVehicleEF	LHD1	9.2400e-004	9.4600e-004
tblVehicleEF	LHD1	2.5590e-003	2.5060e-003
tblVehicleEF	LHD1	0.01	9.4190e-003
tblVehicleEF	LHD1	7.2700e-004	1.9700e-004
tblVehicleEF	LHD1	3.2380e-003	2.5030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6810e-003	1.2970e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.33	0.49
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0650e-003

tblVehicleEF	LHD1	3.3400e-004	1.0100e-004
tblVehicleEF	LHD1	3.2380e-003	2.5030e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6810e-003	1.2970e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.33	0.49
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD2	3.3070e-003	3.0000e-003
tblVehicleEF	LHD2	3.5370e-003	3.2750e-003
tblVehicleEF	LHD2	6.6670e-003	7.9190e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.52
tblVehicleEF	LHD2	14.34	14.66
tblVehicleEF	LHD2	592.89	622.68
tblVehicleEF	LHD2	22.93	7.02
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.29	1.45
tblVehicleEF	LHD2	1.2850e-003	1.4570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	1.0600e-004
tblVehicleEF	LHD2	1.2290e-003	1.3940e-003
tblVehicleEF	LHD2	2.7020e-003	2.7150e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.7000e-005

tblVehicleEF	LHD2	1.3090e-003	1.5300e-003
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.0300e-004	7.9000e-004
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.07	0.22
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	5.7620e-003	5.9990e-003
tblVehicleEF	LHD2	2.4800e-004	6.9000e-005
tblVehicleEF	LHD2	1.3090e-003	1.5300e-003
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.0300e-004	7.9000e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.22
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	3.0070e-003
tblVehicleEF	LHD2	3.5730e-003	3.2970e-003
tblVehicleEF	LHD2	6.4430e-003	7.6530e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.45
tblVehicleEF	LHD2	0.98	0.50
tblVehicleEF	LHD2	14.34	14.66
tblVehicleEF	LHD2	592.89	622.69
tblVehicleEF	LHD2	22.93	6.98
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.22	1.37

tblVehicleEF	LHD2	1.2850e-003	1.4570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	1.0600e-004
tblVehicleEF	LHD2	1.2290e-003	1.3940e-003
tblVehicleEF	LHD2	2.7020e-003	2.7150e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.7000e-005
tblVehicleEF	LHD2	2.4680e-003	2.8830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.3130e-003	1.4920e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.07	0.22
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	5.7620e-003	5.9990e-003
tblVehicleEF	LHD2	2.4700e-004	6.9000e-005
tblVehicleEF	LHD2	2.4680e-003	2.8830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3130e-003	1.4920e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.22
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	2.9980e-003
tblVehicleEF	LHD2	3.5300e-003	3.2690e-003
tblVehicleEF	LHD2	6.7050e-003	7.9760e-003

tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.52
tblVehicleEF	LHD2	14.34	14.66
tblVehicleEF	LHD2	592.89	622.68
tblVehicleEF	LHD2	22.93	7.03
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.28	1.44
tblVehicleEF	LHD2	1.2850e-003	1.4570e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	1.0600e-004
tblVehicleEF	LHD2	1.2290e-003	1.3940e-003
tblVehicleEF	LHD2	2.7020e-003	2.7150e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.7000e-005
tblVehicleEF	LHD2	1.0230e-003	1.1840e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	5.9800e-004	6.5900e-004
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.08	0.24
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	5.7620e-003	5.9990e-003
tblVehicleEF	LHD2	2.4800e-004	7.0000e-005
tblVehicleEF	LHD2	1.0230e-003	1.1840e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.9800e-004	6.5900e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.08	0.24
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	MCY	0.43	0.32
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.81	18.95
tblVehicleEF	MCY	9.70	8.59
tblVehicleEF	MCY	166.71	208.09
tblVehicleEF	MCY	45.36	60.09
tblVehicleEF	MCY	1.12	1.12
tblVehicleEF	MCY	1.8630e-003	1.8420e-003
tblVehicleEF	MCY	3.2830e-003	2.7900e-003
tblVehicleEF	MCY	1.7410e-003	1.7220e-003
tblVehicleEF	MCY	3.0870e-003	2.6220e-003
tblVehicleEF	MCY	1.69	1.67
tblVehicleEF	MCY	0.83	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.11	2.12
tblVehicleEF	MCY	0.55	1.77
tblVehicleEF	MCY	2.05	1.81
tblVehicleEF	MCY	2.0360e-003	2.0590e-003
tblVehicleEF	MCY	6.7200e-004	5.9500e-004
tblVehicleEF	MCY	1.69	1.67
tblVehicleEF	MCY	0.83	0.84
tblVehicleEF	MCY	0.92	0.90

tblVehicleEF	MCY	2.61	2.62
tblVehicleEF	MCY	0.55	1.77
tblVehicleEF	MCY	2.23	1.97
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	MCY	0.13	0.22
tblVehicleEF	MCY	19.51	19.61
tblVehicleEF	MCY	9.10	8.00
tblVehicleEF	MCY	166.71	209.06
tblVehicleEF	MCY	45.36	58.52
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	1.8630e-003	1.8420e-003
tblVehicleEF	MCY	3.2830e-003	2.7900e-003
tblVehicleEF	MCY	1.7410e-003	1.7220e-003
tblVehicleEF	MCY	3.0870e-003	2.6220e-003
tblVehicleEF	MCY	3.35	3.31
tblVehicleEF	MCY	1.23	1.24
tblVehicleEF	MCY	2.09	2.05
tblVehicleEF	MCY	2.09	2.10
tblVehicleEF	MCY	0.55	1.76
tblVehicleEF	MCY	1.84	1.62
tblVehicleEF	MCY	2.0460e-003	2.0690e-003
tblVehicleEF	MCY	6.5600e-004	5.7900e-004
tblVehicleEF	MCY	3.35	3.31
tblVehicleEF	MCY	1.23	1.24
tblVehicleEF	MCY	2.09	2.05
tblVehicleEF	MCY	2.59	2.60
tblVehicleEF	MCY	0.55	1.76

tblVehicleEF	MCY	2.00	1.76
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.37	18.50
tblVehicleEF	MCY	9.67	8.54
tblVehicleEF	MCY	166.71	207.36
tblVehicleEF	MCY	45.36	60.03
tblVehicleEF	MCY	1.12	1.12
tblVehicleEF	MCY	1.8630e-003	1.8420e-003
tblVehicleEF	MCY	3.2830e-003	2.7900e-003
tblVehicleEF	MCY	1.7410e-003	1.7220e-003
tblVehicleEF	MCY	3.0870e-003	2.6220e-003
tblVehicleEF	MCY	1.59	1.59
tblVehicleEF	MCY	1.02	1.03
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	2.11	2.11
tblVehicleEF	MCY	0.63	2.01
tblVehicleEF	MCY	2.06	1.81
tblVehicleEF	MCY	2.0290e-003	2.0520e-003
tblVehicleEF	MCY	6.7200e-004	5.9400e-004
tblVehicleEF	MCY	1.59	1.59
tblVehicleEF	MCY	1.02	1.03
tblVehicleEF	MCY	0.73	0.73
tblVehicleEF	MCY	2.61	2.61
tblVehicleEF	MCY	0.63	2.01
tblVehicleEF	MCY	2.24	1.98
tblVehicleEF	MDV	9.8990e-003	4.3280e-003

tblVehicleEF	MDV	0.01	0.08
tblVehicleEF	MDV	1.15	0.95
tblVehicleEF	MDV	2.62	2.95
tblVehicleEF	MDV	458.82	394.25
tblVehicleEF	MDV	104.21	82.79
tblVehicleEF	MDV	0.13	0.09
tblVehicleEF	MDV	1.6580e-003	1.4210e-003
tblVehicleEF	MDV	2.3780e-003	1.8580e-003
tblVehicleEF	MDV	1.5280e-003	1.3110e-003
tblVehicleEF	MDV	2.1870e-003	1.7090e-003
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.19	0.16
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.48
tblVehicleEF	MDV	0.20	0.37
tblVehicleEF	MDV	4.5960e-003	3.8980e-003
tblVehicleEF	MDV	1.0880e-003	8.1900e-004
tblVehicleEF	MDV	0.11	0.12
tblVehicleEF	MDV	0.19	0.16
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.48
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	0.01	4.9300e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	1.41	1.16

tblVehicleEF	MDV	2.31	2.60
tblVehicleEF	MDV	498.05	417.67
tblVehicleEF	MDV	104.21	82.07
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	1.6580e-003	1.4210e-003
tblVehicleEF	MDV	2.3780e-003	1.8580e-003
tblVehicleEF	MDV	1.5280e-003	1.3110e-003
tblVehicleEF	MDV	2.1870e-003	1.7090e-003
tblVehicleEF	MDV	0.21	0.24
tblVehicleEF	MDV	0.22	0.18
tblVehicleEF	MDV	0.16	0.20
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.11	0.48
tblVehicleEF	MDV	0.17	0.32
tblVehicleEF	MDV	4.9910e-003	4.1290e-003
tblVehicleEF	MDV	1.0820e-003	8.1200e-004
tblVehicleEF	MDV	0.21	0.24
tblVehicleEF	MDV	0.22	0.18
tblVehicleEF	MDV	0.16	0.20
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.48
tblVehicleEF	MDV	0.19	0.35
tblVehicleEF	MDV	9.5100e-003	4.1550e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.08	0.89
tblVehicleEF	MDV	2.68	3.02
tblVehicleEF	MDV	447.05	387.19

tblVehicleEF	MDV	104.21	82.93
tblVehicleEF	MDV	0.13	0.09
tblVehicleEF	MDV	1.6580e-003	1.4210e-003
tblVehicleEF	MDV	2.3780e-003	1.8580e-003
tblVehicleEF	MDV	1.5280e-003	1.3110e-003
tblVehicleEF	MDV	2.1870e-003	1.7090e-003
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.13	0.54
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MDV	4.4770e-003	3.8280e-003
tblVehicleEF	MDV	1.0890e-003	8.2100e-004
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.13	0.54
tblVehicleEF	MDV	0.22	0.42
tblVehicleEF	MH	0.02	3.2090e-003
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	2.00	0.32
tblVehicleEF	MH	5.24	0.00
tblVehicleEF	MH	995.46	928.22
tblVehicleEF	MH	57.13	0.00
tblVehicleEF	MH	1.48	4.16

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	9.7800e-004	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	8.9900e-004	0.00
tblVehicleEF	MH	1.38	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.49	0.00
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.31	0.00
tblVehicleEF	MH	9.8680e-003	8.7750e-003
tblVehicleEF	MH	6.6300e-004	0.00
tblVehicleEF	MH	1.38	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.49	0.00
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MH	0.02	3.2090e-003
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	2.05	0.32
tblVehicleEF	MH	4.88	0.00
tblVehicleEF	MH	995.46	928.22
tblVehicleEF	MH	57.13	0.00
tblVehicleEF	MH	1.37	3.92

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	9.7800e-004	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	8.9900e-004	0.00
tblVehicleEF	MH	2.52	0.00
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.94	0.00
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.30	0.00
tblVehicleEF	MH	9.8690e-003	8.7750e-003
tblVehicleEF	MH	6.5700e-004	0.00
tblVehicleEF	MH	2.52	0.00
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.94	0.00
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.32	0.00
tblVehicleEF	MH	0.02	3.2090e-003
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	1.99	0.32
tblVehicleEF	MH	5.28	0.00
tblVehicleEF	MH	995.46	928.22
tblVehicleEF	MH	57.13	0.00
tblVehicleEF	MH	1.46	4.12

tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	9.7800e-004	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.13
tblVehicleEF	MH	8.9900e-004	0.00
tblVehicleEF	MH	1.38	0.00
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.47	0.00
tblVehicleEF	MH	0.07	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.31	0.00
tblVehicleEF	MH	9.8680e-003	8.7750e-003
tblVehicleEF	MH	6.6300e-004	0.00
tblVehicleEF	MH	1.38	0.00
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.47	0.00
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MHD	0.02	3.2310e-003
tblVehicleEF	MHD	2.5650e-003	1.3290e-003
tblVehicleEF	MHD	0.05	8.5180e-003
tblVehicleEF	MHD	0.32	0.36
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	5.07	0.97
tblVehicleEF	MHD	148.43	69.20

tblVehicleEF	MHD	1,056.49	939.42
tblVehicleEF	MHD	54.56	8.50
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.47	0.90
tblVehicleEF	MHD	1.3500e-004	4.2800e-004
tblVehicleEF	MHD	2.6660e-003	9.3850e-003
tblVehicleEF	MHD	7.3000e-004	9.6000e-005
tblVehicleEF	MHD	1.2900e-004	4.0900e-004
tblVehicleEF	MHD	2.5470e-003	8.9760e-003
tblVehicleEF	MHD	6.7100e-004	8.9000e-005
tblVehicleEF	MHD	1.5020e-003	6.5600e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.6500e-004	3.3500e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.31	0.04
tblVehicleEF	MHD	1.4270e-003	6.5600e-004
tblVehicleEF	MHD	0.01	8.9480e-003
tblVehicleEF	MHD	6.3400e-004	8.4000e-005
tblVehicleEF	MHD	1.5020e-003	6.5600e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	7.6500e-004	3.3500e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.34	0.05

tblVehicleEF	MHD	0.02	3.0750e-003
tblVehicleEF	MHD	2.5980e-003	1.3500e-003
tblVehicleEF	MHD	0.05	8.2390e-003
tblVehicleEF	MHD	0.23	0.31
tblVehicleEF	MHD	0.21	0.18
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tblVehicleEF	MHD	157.22	69.18
tblVehicleEF	MHD	1,056.49	939.42
tblVehicleEF	MHD	54.56	8.42
tblVehicleEF	MHD	0.42	0.39
tblVehicleEF	MHD	0.44	0.85
tblVehicleEF	MHD	1.1400e-004	3.6400e-004
tblVehicleEF	MHD	2.6660e-003	9.3850e-003
tblVehicleEF	MHD	7.3000e-004	9.6000e-005
tblVehicleEF	MHD	1.0900e-004	3.4800e-004
tblVehicleEF	MHD	2.5470e-003	8.9760e-003
tblVehicleEF	MHD	6.7100e-004	8.9000e-005
tblVehicleEF	MHD	2.8970e-003	1.2520e-003
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	1.4710e-003	6.4800e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.30	0.04
tblVehicleEF	MHD	1.5100e-003	6.5600e-004
tblVehicleEF	MHD	0.01	8.9480e-003
tblVehicleEF	MHD	6.3000e-004	8.3000e-005

tblVehicleEF	MHD	2.8970e-003	1.2520e-003
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.4710e-003	6.4800e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.33	0.05
tblVehicleEF	MHD	0.02	3.4570e-003
tblVehicleEF	MHD	2.5410e-003	1.3140e-003
tblVehicleEF	MHD	0.05	8.5940e-003
tblVehicleEF	MHD	0.44	0.42
tblVehicleEF	MHD	0.21	0.17
tblVehicleEF	MHD	5.15	0.99
tblVehicleEF	MHD	136.28	69.22
tblVehicleEF	MHD	1,056.49	939.42
tblVehicleEF	MHD	54.56	8.52
tblVehicleEF	MHD	0.39	0.41
tblVehicleEF	MHD	0.46	0.89
tblVehicleEF	MHD	1.6400e-004	5.1700e-004
tblVehicleEF	MHD	2.6660e-003	9.3850e-003
tblVehicleEF	MHD	7.3000e-004	9.6000e-005
tblVehicleEF	MHD	1.5700e-004	4.9400e-004
tblVehicleEF	MHD	2.5470e-003	8.9760e-003
tblVehicleEF	MHD	6.7100e-004	8.9000e-005
tblVehicleEF	MHD	1.0970e-003	4.9200e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	5.9600e-004	2.6700e-004
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.31	0.05
tblVehicleEF	MHD	1.3130e-003	6.5600e-004
tblVehicleEF	MHD	0.01	8.9480e-003
tblVehicleEF	MHD	6.3600e-004	8.4000e-005
tblVehicleEF	MHD	1.0970e-003	4.9200e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	5.9600e-004	2.6700e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.34	0.05
tblVehicleEF	OBUS	0.01	8.5500e-003
tblVehicleEF	OBUS	5.6790e-003	4.7720e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.25	0.50
tblVehicleEF	OBUS	0.39	0.58
tblVehicleEF	OBUS	5.52	2.45
tblVehicleEF	OBUS	68.59	68.17
tblVehicleEF	OBUS	1,085.33	1,337.43
tblVehicleEF	OBUS	69.49	20.30
tblVehicleEF	OBUS	0.13	0.25
tblVehicleEF	OBUS	0.35	0.81
tblVehicleEF	OBUS	1.2000e-005	8.2000e-005
tblVehicleEF	OBUS	1.9500e-003	7.9710e-003

tblVehicleEF	OBUS	8.7100e-004	1.9800e-004
tblVehicleEF	OBUS	1.1000e-005	7.8000e-005
tblVehicleEF	OBUS	1.8490e-003	7.6120e-003
tblVehicleEF	OBUS	8.0000e-004	1.8200e-004
tblVehicleEF	OBUS	2.0910e-003	2.6360e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	9.0600e-004	1.1390e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.27
tblVehicleEF	OBUS	0.34	0.12
tblVehicleEF	OBUS	6.6700e-004	6.5100e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.9200e-004	2.0100e-004
tblVehicleEF	OBUS	2.0910e-003	2.6360e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	9.0600e-004	1.1390e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.27
tblVehicleEF	OBUS	0.38	0.13
tblVehicleEF	OBUS	0.01	8.6200e-003
tblVehicleEF	OBUS	5.7930e-003	4.8760e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.24	0.50
tblVehicleEF	OBUS	0.40	0.59
tblVehicleEF	OBUS	5.16	2.29

tblVehicleEF	OBUS	71.65	67.44
tblVehicleEF	OBUS	1,085.33	1,337.45
tblVehicleEF	OBUS	69.49	20.03
tblVehicleEF	OBUS	0.14	0.23
tblVehicleEF	OBUS	0.33	0.75
tblVehicleEF	OBUS	1.0000e-005	7.3000e-005
tblVehicleEF	OBUS	1.9500e-003	7.9710e-003
tblVehicleEF	OBUS	8.7100e-004	1.9800e-004
tblVehicleEF	OBUS	1.0000e-005	6.9000e-005
tblVehicleEF	OBUS	1.8490e-003	7.6120e-003
tblVehicleEF	OBUS	8.0000e-004	1.8200e-004
tblVehicleEF	OBUS	3.8840e-003	4.8010e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.05
tblVehicleEF	OBUS	1.7290e-003	2.1640e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.27
tblVehicleEF	OBUS	0.33	0.11
tblVehicleEF	OBUS	6.9600e-004	6.4400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.8600e-004	1.9800e-004
tblVehicleEF	OBUS	3.8840e-003	4.8010e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	1.7290e-003	2.1640e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.27

tblVehicleEF	OBUS	0.36	0.12
tblVehicleEF	OBUS	0.01	8.4810e-003
tblVehicleEF	OBUS	5.6610e-003	4.7410e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.25	0.51
tblVehicleEF	OBUS	0.39	0.58
tblVehicleEF	OBUS	5.57	2.48
tblVehicleEF	OBUS	64.36	69.17
tblVehicleEF	OBUS	1,085.33	1,337.43
tblVehicleEF	OBUS	69.49	20.34
tblVehicleEF	OBUS	0.13	0.26
tblVehicleEF	OBUS	0.35	0.81
tblVehicleEF	OBUS	1.5000e-005	9.4000e-005
tblVehicleEF	OBUS	1.9500e-003	7.9710e-003
tblVehicleEF	OBUS	8.7100e-004	1.9800e-004
tblVehicleEF	OBUS	1.4000e-005	9.0000e-005
tblVehicleEF	OBUS	1.8490e-003	7.6120e-003
tblVehicleEF	OBUS	8.0000e-004	1.8200e-004
tblVehicleEF	OBUS	1.7990e-003	2.3770e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	8.3400e-004	1.0810e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.28
tblVehicleEF	OBUS	0.35	0.12
tblVehicleEF	OBUS	6.2600e-004	6.6000e-004
tblVehicleEF	OBUS	0.01	0.01

tblVehicleEF	OBUS	7.9300e-004	2.0100e-004
tblVehicleEF	OBUS	1.7990e-003	2.3770e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.3400e-004	1.0810e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.28
tblVehicleEF	OBUS	0.38	0.13
tblVehicleEF	SBUS	0.82	0.08
tblVehicleEF	SBUS	9.5650e-003	6.1380e-003
tblVehicleEF	SBUS	0.06	7.1540e-003
tblVehicleEF	SBUS	7.84	3.12
tblVehicleEF	SBUS	0.57	0.50
tblVehicleEF	SBUS	6.44	0.94
tblVehicleEF	SBUS	1,128.57	363.20
tblVehicleEF	SBUS	1,093.03	1,093.96
tblVehicleEF	SBUS	55.12	6.12
tblVehicleEF	SBUS	8.81	3.37
tblVehicleEF	SBUS	3.97	4.43
tblVehicleEF	SBUS	8.4250e-003	3.4460e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.4000e-005
tblVehicleEF	SBUS	8.0610e-003	3.2970e-003
tblVehicleEF	SBUS	2.6870e-003	2.6490e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.1000e-005

tblVehicleEF	SBUS	5.0680e-003	1.5010e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	0.93	0.37
tblVehicleEF	SBUS	2.4310e-003	7.2500e-004
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.36	0.04
tblVehicleEF	SBUS	0.01	3.4700e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6300e-004	6.1000e-005
tblVehicleEF	SBUS	5.0680e-003	1.5010e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.34	0.53
tblVehicleEF	SBUS	2.4310e-003	7.2500e-004
tblVehicleEF	SBUS	0.12	0.10
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.39	0.05
tblVehicleEF	SBUS	0.82	0.08
tblVehicleEF	SBUS	9.7050e-003	6.2090e-003
tblVehicleEF	SBUS	0.05	5.9970e-003
tblVehicleEF	SBUS	7.74	3.09
tblVehicleEF	SBUS	0.58	0.50
tblVehicleEF	SBUS	4.67	0.68
tblVehicleEF	SBUS	1,179.47	372.25
tblVehicleEF	SBUS	1,093.03	1,093.97
tblVehicleEF	SBUS	55.12	5.68
tblVehicleEF	SBUS	9.10	3.45

tblVehicleEF	SBUS	3.73	4.17
tblVehicleEF	SBUS	7.1020e-003	2.9130e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.4000e-005
tblVehicleEF	SBUS	6.7950e-003	2.7870e-003
tblVehicleEF	SBUS	2.6870e-003	2.6490e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.1000e-005
tblVehicleEF	SBUS	9.1290e-003	2.7020e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.92	0.37
tblVehicleEF	SBUS	4.4980e-003	1.3370e-003
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.30	0.03
tblVehicleEF	SBUS	0.01	3.5550e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.3300e-004	5.6000e-005
tblVehicleEF	SBUS	9.1290e-003	2.7020e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	1.34	0.53
tblVehicleEF	SBUS	4.4980e-003	1.3370e-003
tblVehicleEF	SBUS	0.12	0.11
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.33	0.04
tblVehicleEF	SBUS	0.82	0.08

tblVehicleEF	SBUS	9.5210e-003	6.1310e-003
tblVehicleEF	SBUS	0.06	7.4110e-003
tblVehicleEF	SBUS	8.00	3.17
tblVehicleEF	SBUS	0.57	0.50
tblVehicleEF	SBUS	6.79	0.98
tblVehicleEF	SBUS	1,058.28	350.71
tblVehicleEF	SBUS	1,093.03	1,093.96
tblVehicleEF	SBUS	55.12	6.19
tblVehicleEF	SBUS	8.43	3.26
tblVehicleEF	SBUS	3.93	4.40
tblVehicleEF	SBUS	0.01	4.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.4000e-005
tblVehicleEF	SBUS	9.8080e-003	4.0020e-003
tblVehicleEF	SBUS	2.6870e-003	2.6490e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.1000e-005
tblVehicleEF	SBUS	4.3640e-003	1.2920e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	0.93	0.37
tblVehicleEF	SBUS	2.3310e-003	6.9700e-004
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.37	0.04
tblVehicleEF	SBUS	0.01	3.3520e-003
tblVehicleEF	SBUS	0.01	0.01

tblVehicleEF	SBUS	6.6900e-004	6.1000e-005
tblVehicleEF	SBUS	4.3640e-003	1.2920e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.34	0.53
tblVehicleEF	SBUS	2.3310e-003	6.9700e-004
tblVehicleEF	SBUS	0.12	0.10
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.40	0.05
tblVehicleEF	UBUS	1.36	3.35
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	7.52	26.09
tblVehicleEF	UBUS	13.83	1.44
tblVehicleEF	UBUS	1,788.21	1,610.65
tblVehicleEF	UBUS	153.17	17.72
tblVehicleEF	UBUS	3.79	0.32
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.7900e-003
tblVehicleEF	UBUS	1.4880e-003	1.7300e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.04	2.6530e-003
tblVehicleEF	UBUS	1.3680e-003	1.5900e-004
tblVehicleEF	UBUS	9.0420e-003	1.9590e-003
tblVehicleEF	UBUS	0.10	0.01
tblVehicleEF	UBUS	4.5390e-003	8.8500e-004
tblVehicleEF	UBUS	0.42	0.05

tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	1.09	0.07
tblVehicleEF	UBUS	9.5090e-003	4.8150e-003
tblVehicleEF	UBUS	1.7820e-003	1.7500e-004
tblVehicleEF	UBUS	9.0420e-003	1.9590e-003
tblVehicleEF	UBUS	0.10	0.01
tblVehicleEF	UBUS	4.5390e-003	8.8500e-004
tblVehicleEF	UBUS	1.82	3.43
tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	1.19	0.08
tblVehicleEF	UBUS	1.36	3.35
tblVehicleEF	UBUS	0.07	0.02
tblVehicleEF	UBUS	7.58	26.09
tblVehicleEF	UBUS	11.85	1.22
tblVehicleEF	UBUS	1,788.21	1,610.66
tblVehicleEF	UBUS	153.17	17.36
tblVehicleEF	UBUS	3.53	0.31
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.7900e-003
tblVehicleEF	UBUS	1.4880e-003	1.7300e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.04	2.6530e-003
tblVehicleEF	UBUS	1.3680e-003	1.5900e-004
tblVehicleEF	UBUS	0.02	3.4780e-003
tblVehicleEF	UBUS	0.13	0.01

tblVehicleEF	UBUS	9.0520e-003	1.7490e-003
tblVehicleEF	UBUS	0.43	0.05
tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	0.99	0.07
tblVehicleEF	UBUS	9.5110e-003	4.8150e-003
tblVehicleEF	UBUS	1.7480e-003	1.7200e-004
tblVehicleEF	UBUS	0.02	3.4780e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	9.0520e-003	1.7490e-003
tblVehicleEF	UBUS	1.83	3.43
tblVehicleEF	UBUS	0.02	0.06
tblVehicleEF	UBUS	1.09	0.07
tblVehicleEF	UBUS	1.36	3.35
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	7.51	26.09
tblVehicleEF	UBUS	14.02	1.42
tblVehicleEF	UBUS	1,788.21	1,610.65
tblVehicleEF	UBUS	153.17	17.70
tblVehicleEF	UBUS	3.75	0.31
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.7900e-003
tblVehicleEF	UBUS	1.4880e-003	1.7300e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.04	2.6530e-003
tblVehicleEF	UBUS	1.3680e-003	1.5900e-004

tblVehicleEF	UBUS	8.1990e-003	1.9860e-003
tblVehicleEF	UBUS	0.12	0.01
tblVehicleEF	UBUS	4.1400e-003	9.2700e-004
tblVehicleEF	UBUS	0.42	0.05
tblVehicleEF	UBUS	0.03	0.07
tblVehicleEF	UBUS	1.10	0.07
tblVehicleEF	UBUS	9.5090e-003	4.8150e-003
tblVehicleEF	UBUS	1.7850e-003	1.7500e-004
tblVehicleEF	UBUS	8.1990e-003	1.9860e-003
tblVehicleEF	UBUS	0.12	0.01
tblVehicleEF	UBUS	4.1400e-003	9.2700e-004
tblVehicleEF	UBUS	1.82	3.43
tblVehicleEF	UBUS	0.03	0.07
tblVehicleEF	UBUS	1.20	0.08
tblVehicleTrips	WD_TR	12.89	30.10

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	0.2755	3.0393	1.5015	4.5300e-003	0.8318	0.1210	0.9528	0.3375	0.1119	0.4493	0.0000	401.6776	401.6776	0.1014	0.0000	404.2121
2023	0.3545	2.2704	1.7336	4.6400e-003	0.0882	0.0927	0.1809	0.0224	0.0865	0.1089	0.0000	409.1902	409.1902	0.0887	0.0000	411.4083
Maximum	**0.3545**	**3.0393**	**1.7336**	**4.6400e-003**	**0.8318**	**0.1210**	**0.9528**	**0.3375**	**0.1119**	**0.4493**	**0.0000**	**409.1902**	**409.1902**	**0.1014**	**0.0000**	**411.4083**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2755	3.0393	1.5015	4.5300e-003	0.3554	0.1210	0.4764	0.1400	0.1119	0.2518	0.0000	401.6772	401.6772	0.1014	0.0000	404.2117
2023	0.3545	2.2704	1.7336	4.6400e-003	0.0814	0.0927	0.1741	0.0214	0.0865	0.1079	0.0000	409.1899	409.1899	0.0887	0.0000	411.4079
Maximum	**0.3545**	**3.0393**	**1.7336**	**4.6400e-003**	**0.3554**	**0.1210**	**0.4764**	**0.1400**	**0.1119**	**0.2518**	**0.0000**	**409.1899**	**409.1899**	**0.1014**	**0.0000**	**411.4079**

	ROG	NOx	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**	**52.52**	**0.00**	**42.62**	**55.16**	**0.00**	**35.56**	**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	8-1-2022	10-31-2022	2.4739	2.4739
2	11-1-2022	1-31-2023	1.1314	1.1314
3	2-1-2023	4-30-2023	0.9988	0.9988
4	5-1-2023	7-31-2023	1.2222	1.2222
5	8-1-2023	9-30-2023	0.0347	0.0347
		Highest	2.4739	2.4739

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1815	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-003
Energy	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	90.4312	90.4312	3.4100e-003	9.2000e-004	90.7897
Mobile	0.3908	1.8585	4.3494	0.0164	1.5122	0.0166	1.5288	0.4048	0.0156	0.4204	0.0000	1,533.7605	1,533.7605	0.0528	0.0000	1,535.0792
Waste						0.0000	0.0000		0.0000	0.0000	10.9514	0.0000	10.9514	0.6472	0.0000	27.1315
Water						0.0000	0.0000		0.0000	0.0000	0.4372	18.2602	18.6974	0.0457	1.2200e-003	20.2012
Total	**0.5737**	**1.8720**	**4.3620**	**0.0165**	**1.5122**	**0.0176**	**1.5298**	**0.4048**	**0.0167**	**0.4215**	**11.3885**	**1,642.4542**	**1,653.8428**	**0.7490**	**2.1400e-003**	**1,673.2041**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1815	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-003
Energy	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	90.4312	90.4312	3.4100e-003	9.2000e-004	90.7897
Mobile	0.3908	1.8585	4.3494	0.0164	1.5122	0.0166	1.5288	0.4048	0.0156	0.4204	0.0000	1,533.7605	1,533.7605	0.0528	0.0000	1,535.0792
Waste						0.0000	0.0000		0.0000	0.0000	10.9514	0.0000	10.9514	0.6472	0.0000	27.1315
Water						0.0000	0.0000		0.0000	0.0000	0.4372	18.2602	18.6974	0.0457	1.2200e-003	20.2012
Total	**0.5737**	**1.8720**	**4.3620**	**0.0165**	**1.5122**	**0.0176**	**1.5298**	**0.4048**	**0.0167**	**0.4215**	**11.3885**	**1,642.4542**	**1,653.8428**	**0.7490**	**2.1400e-003**	**1,673.2041**

	ROG	NOx	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	Site Preparation	Site Preparation	8/1/2022	9/30/2022	5	45	
2	Grading	Grading	8/1/2022	9/30/2022	5	45	
3	Building Construction	Building Construction	10/1/2022	6/23/2023	5	190	
4	Paving	Paving	5/28/2023	6/23/2023	5	20	
5	Architectural Coating	Architectural Coating	5/28/2023	6/23/2023	5	20	
6	Demolition	Demolition	6/24/2023	8/4/2023	5	30	

Acres of Grading (Site Preparation Phase): 225

Acres of Grading (Grading Phase): 225

Acres of Paving: 3.56

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 62,250; Non-Residential Outdoor: 20,750; Striped Parking Area: 9,306 (Architectural Coating – sqft)

OffRoad Equipment

Murrieta Canyon Academy (Unmitigated) - Riverside-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	3	8.00	212	0.43
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	212	0.43
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	8.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	100.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	83.00	32.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5258	0.0000	0.5258	0.2363	0.0000	0.2363	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1008	1.1343	0.4501	1.2800e-003		0.0486	0.0486		0.0447	0.0447	0.0000	112.6159	112.6159	0.0364	0.0000	113.5265
Total	**0.1008**	**1.1343**	**0.4501**	**1.2800e-003**	**0.5258**	**0.0486**	**0.5744**	**0.2363**	**0.0447**	**0.2810**	**0.0000**	**112.6159**	**112.6159**	**0.0364**	**0.0000**	**113.5265**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.6300e-003	1.0500e-003	0.0117	4.0000e-005	4.4500e-003	3.0000e-005	4.4800e-003	1.1800e-003	2.0000e-005	1.2100e-003	0.0000	3.4685	3.4685	8.0000e-005	0.0000	3.4704
Total	**1.6300e-003**	**1.0500e-003**	**0.0117**	**4.0000e-005**	**4.4500e-003**	**3.0000e-005**	**4.4800e-003**	**1.1800e-003**	**2.0000e-005**	**1.2100e-003**	**0.0000**	**3.4685**	**3.4685**	**8.0000e-005**	**0.0000**	**3.4704**

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					0.2051	0.0000	0.2051	0.0922	0.0000	0.0922	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1008	1.1343	0.4501	1.2800e-003		0.0486	0.0486		0.0447	0.0447	0.0000	112.6158	112.6158	0.0364	0.0000	113.5263
Total	**0.1008**	**1.1343**	**0.4501**	**1.2800e-003**	**0.2051**	**0.0486**	**0.2536**	**0.0922**	**0.0447**	**0.1369**	**0.0000**	**112.6158**	**112.6158**	**0.0364**	**0.0000**	**113.5263**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.6300e-003	1.0500e-003	0.0117	4.0000e-005	4.4500e-003	3.0000e-005	4.4800e-003	1.1800e-003	2.0000e-005	1.2100e-003	0.0000	3.4685	3.4685	8.0000e-005	0.0000	3.4704
Total	**1.6300e-003**	**1.0500e-003**	**0.0117**	**4.0000e-005**	**4.4500e-003**	**3.0000e-005**	**4.4800e-003**	**1.1800e-003**	**2.0000e-005**	**1.2100e-003**	**0.0000**	**3.4685**	**3.4685**	**8.0000e-005**	**0.0000**	**3.4704**

3.3 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					0.2552	0.0000	0.2552	0.0874	0.0000	0.0874	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0659	0.7617	0.3488	9.9000e-004		0.0304	0.0304		0.0280	0.0280	0.0000	86.6562	86.6562	0.0280	0.0000	87.3569
Total	**0.0659**	**0.7617**	**0.3488**	**9.9000e-004**	**0.2552**	**0.0304**	**0.2856**	**0.0874**	**0.0280**	**0.1154**	**0.0000**	**86.6562**	**86.6562**	**0.0280**	**0.0000**	**87.3569**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7500e-003	0.0758	0.0111	2.8000e-004	6.4600e-003	2.1000e-004	6.6700e-003	1.7700e-003	2.0000e-004	1.9700e-003	0.0000	26.5971	26.5971	1.5800e-003	0.0000	26.6365
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	1.3600e-003	8.8000e-004	9.7900e-003	3.0000e-005	3.7100e-003	2.0000e-005	3.7300e-003	9.9000e-004	2.0000e-005	1.0000e-003	0.0000	2.8904	2.8904	6.0000e-005	0.0000	2.8920
Total	**3.1100e-003**	**0.0766**	**0.0209**	**3.1000e-004**	**0.0102**	**2.3000e-004**	**0.0104**	**2.7600e-003**	**2.2000e-004**	**2.9700e-003**	**0.0000**	**29.4875**	**29.4875**	**1.6400e-003**	**0.0000**	**29.5285**

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					0.0995	0.0000	0.0995	0.0341	0.0000	0.0341	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0659	0.7617	0.3488	9.9000e-004		0.0304	0.0304		0.0280	0.0280	0.0000	86.6561	86.6561	0.0280	0.0000	87.3568
Total	**0.0659**	**0.7617**	**0.3488**	**9.9000e-004**	**0.0995**	**0.0304**	**0.1299**	**0.0341**	**0.0280**	**0.0621**	**0.0000**	**86.6561**	**86.6561**	**0.0280**	**0.0000**	**87.3568**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7500e-003	0.0758	0.0111	2.8000e-004	6.4600e-003	2.1000e-004	6.6700e-003	1.7700e-003	2.0000e-004	1.9700e-003	0.0000	26.5971	26.5971	1.5800e-003	0.0000	26.6365
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	1.3600e-003	8.8000e-004	9.7900e-003	3.0000e-005	3.7100e-003	2.0000e-005	3.7300e-003	9.9000e-004	2.0000e-005	1.0000e-003	0.0000	2.8904	2.8904	6.0000e-005	0.0000	2.8920
Total	**3.1100e-003**	**0.0766**	**0.0209**	**3.1000e-004**	**0.0102**	**2.3000e-004**	**0.0104**	**2.7600e-003**	**2.2000e-004**	**2.9700e-003**	**0.0000**	**29.4875**	**29.4875**	**1.6400e-003**	**0.0000**	**29.5285**

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	0.0909	0.9673	0.5743	1.4000e-003		0.0414	0.0414		0.0387	0.0387	0.0000	121.1929	121.1929	0.0329	0.0000	122.0149
Total	**0.0909**	**0.9673**	**0.5743**	**1.4000e-003**		**0.0414**	**0.0414**		**0.0387**	**0.0387**	**0.0000**	**121.1929**	**121.1929**	**0.0329**	**0.0000**	**122.0149**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3200e-003	0.0914	0.0174	2.6000e-004	6.5700e-003	1.6000e-004	6.7200e-003	1.8900e-003	1.5000e-004	2.0400e-003	0.0000	25.1550	25.1550	1.8300e-003	0.0000	25.2008
Worker	0.0108	7.0100e-003	0.0782	2.6000e-004	0.0297	1.7000e-004	0.0298	7.8700e-003	1.6000e-004	8.0300e-003	0.0000	23.1017	23.1017	5.0000e-004	0.0000	23.1142
Total	**0.0132**	**0.0984**	**0.0956**	**5.2000e-004**	**0.0362**	**3.3000e-004**	**0.0365**	**9.7600e-003**	**3.1000e-004**	**0.0101**	**0.0000**	**48.2566**	**48.2566**	**2.3300e-003**	**0.0000**	**48.3150**

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	0.0909	0.9673	0.5743	1.4000e-003		0.0414	0.0414		0.0387	0.0387	0.0000	121.1928	121.1928	0.0329	0.0000	122.0148
Total	**0.0909**	**0.9673**	**0.5743**	**1.4000e-003**		**0.0414**	**0.0414**		**0.0387**	**0.0387**	**0.0000**	**121.1928**	**121.1928**	**0.0329**	**0.0000**	**122.0148**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3200e-003	0.0914	0.0174	2.6000e-004	6.5700e-003	1.6000e-004	6.7200e-003	1.8900e-003	1.5000e-004	2.0400e-003	0.0000	25.1550	25.1550	1.8300e-003	0.0000	25.2008
Worker	0.0108	7.0100e-003	0.0782	2.6000e-004	0.0297	1.7000e-004	0.0298	7.8700e-003	1.6000e-004	8.0300e-003	0.0000	23.1017	23.1017	5.0000e-004	0.0000	23.1142
Total	**0.0132**	**0.0984**	**0.0956**	**5.2000e-004**	**0.0362**	**3.3000e-004**	**0.0365**	**9.7600e-003**	**3.1000e-004**	**0.0101**	**0.0000**	**48.2566**	**48.2566**	**2.3300e-003**	**0.0000**	**48.3150**

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	0.1595	1.6378	1.0842	2.6900e-003		0.0698	0.0698		0.0651	0.0651	0.0000	232.9333	232.9333	0.0629	0.0000	234.5068
Total	**0.1595**	**1.6378**	**1.0842**	**2.6900e-003**		**0.0698**	**0.0698**		**0.0651**	**0.0651**	**0.0000**	**232.9333**	**232.9333**	**0.0629**	**0.0000**	**234.5068**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4100e-003	0.1314	0.0291	4.9000e-004	0.0126	1.3000e-004	0.0128	3.6400e-003	1.3000e-004	3.7700e-003	0.0000	47.1004	47.1004	2.7000e-003	0.0000	47.1679
Worker	0.0196	0.0122	0.1387	4.7000e-004	0.0570	3.2000e-004	0.0573	0.0151	3.0000e-004	0.0154	0.0000	42.7402	42.7402	8.7000e-004	0.0000	42.7619
Total	**0.0230**	**0.1435**	**0.1678**	**9.6000e-004**	**0.0697**	**4.5000e-004**	**0.0701**	**0.0188**	**4.3000e-004**	**0.0192**	**0.0000**	**89.8406**	**89.8406**	**3.5700e-003**	**0.0000**	**89.9298**

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	0.1595	1.6378	1.0842	2.6900e-003		0.0698	0.0698		0.0651	0.0651	0.0000	232.9330	232.9330	0.0629	0.0000	234.5066
Total	**0.1595**	**1.6378**	**1.0842**	**2.6900e-003**		**0.0698**	**0.0698**		**0.0651**	**0.0651**	**0.0000**	**232.9330**	**232.9330**	**0.0629**	**0.0000**	**234.5066**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4100e-003	0.1314	0.0291	4.9000e-004	0.0126	1.3000e-004	0.0128	3.6400e-003	1.3000e-004	3.7700e-003	0.0000	47.1004	47.1004	2.7000e-003	0.0000	47.1679
Worker	0.0196	0.0122	0.1387	4.7000e-004	0.0570	3.2000e-004	0.0573	0.0151	3.0000e-004	0.0154	0.0000	42.7402	42.7402	8.7000e-004	0.0000	42.7619
Total	**0.0230**	**0.1435**	**0.1678**	**9.6000e-004**	**0.0697**	**4.5000e-004**	**0.0701**	**0.0188**	**4.3000e-004**	**0.0192**	**0.0000**	**89.8406**	**89.8406**	**3.5700e-003**	**0.0000**	**89.9298**

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	0.0140	0.1417	0.1456	2.7000e-004		6.4900e-003	6.4900e-003		5.9900e-003	5.9900e-003	0.0000	23.6927	23.6927	7.4600e-003	0.0000	23.8792
Paving	1.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0153**	**0.1417**	**0.1456**	**2.7000e-004**		**6.4900e-003**	**6.4900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**23.6927**	**23.6927**	**7.4600e-003**	**0.0000**	**23.8792**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	7.5000e-004	4.7000e-004	5.3500e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2100e-003	5.8000e-004	1.0000e-005	6.0000e-004	0.0000	1.6478	1.6478	3.0000e-005	0.0000	1.6487
Total	**7.5000e-004**	**4.7000e-004**	**5.3500e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2100e-003**	**5.8000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6478**	**1.6478**	**3.0000e-005**	**0.0000**	**1.6487**

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	0.0140	0.1417	0.1456	2.7000e-004		6.4900e-003	6.4900e-003		5.9900e-003	5.9900e-003	0.0000	23.6927	23.6927	7.4600e-003	0.0000	23.8792
Paving	1.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0153**	**0.1417**	**0.1456**	**2.7000e-004**		**6.4900e-003**	**6.4900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**23.6927**	**23.6927**	**7.4600e-003**	**0.0000**	**23.8792**

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	7.5000e-004	4.7000e-004	5.3500e-003	2.0000e-005	2.2000e-003	1.0000e-005	2.2100e-003	5.8000e-004	1.0000e-005	6.0000e-004	0.0000	1.6478	1.6478	3.0000e-005	0.0000	1.6487
Total	**7.5000e-004**	**4.7000e-004**	**5.3500e-003**	**2.0000e-005**	**2.2000e-003**	**1.0000e-005**	**2.2100e-003**	**5.8000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6478**	**1.6478**	**3.0000e-005**	**0.0000**	**1.6487**

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	0.1177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5600e-003	0.0174	0.0242	4.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	3.4043	3.4043	2.0000e-004	0.0000	3.4094
Total	**0.1203**	**0.0174**	**0.0242**	**4.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**3.4043**	**3.4043**	**2.0000e-004**	**0.0000**	**3.4094**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	6.4000e-004	4.0000e-004	4.5400e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4006	1.4006	3.0000e-005	0.0000	1.4014
Total	**6.4000e-004**	**4.0000e-004**	**4.5400e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.4006**	**1.4006**	**3.0000e-005**	**0.0000**	**1.4014**

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	0.1177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5600e-003	0.0174	0.0242	4.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	3.4043	3.4043	2.0000e-004	0.0000	3.4094
Total	**0.1203**	**0.0174**	**0.0242**	**4.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**3.4043**	**3.4043**	**2.0000e-004**	**0.0000**	**3.4094**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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	6.4000e-004	4.0000e-004	4.5400e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.4006	1.4006	3.0000e-005	0.0000	1.4014
Total	**6.4000e-004**	**4.0000e-004**	**4.5400e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.1000e-004**	**0.0000**	**1.4006**	**1.4006**	**3.0000e-005**	**0.0000**	**1.4014**

3.7 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0111	0.0000	0.0111	1.6900e-003	0.0000	1.6900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0340	0.3223	0.2947	5.8000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	50.9881	50.9881	0.0143	0.0000	51.3451
Total	**0.0340**	**0.3223**	**0.2947**	**5.8000e-004**	**0.0111**	**0.0150**	**0.0261**	**1.6900e-003**	**0.0139**	**0.0156**	**0.0000**	**50.9881**	**50.9881**	**0.0143**	**0.0000**	**51.3451**

3.7 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	6.3000e-003	1.2900e-003	4.0000e-005	8.6000e-004	1.0000e-005	8.7000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	3.4290	3.4290	1.7000e-004	0.0000	3.4332
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	8.5000e-004	5.3000e-004	6.0100e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.8538	1.8538	4.0000e-005	0.0000	1.8547
Total	**1.0100e-003**	**6.8300e-003**	**7.3000e-003**	**6.0000e-005**	**3.3300e-003**	**2.0000e-005**	**3.3600e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**5.2828**	**5.2828**	**2.1000e-004**	**0.0000**	**5.2880**

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					4.3500e-003	0.0000	4.3500e-003	6.6000e-004	0.0000	6.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0340	0.3223	0.2947	5.8000e-004		0.0150	0.0150		0.0139	0.0139	0.0000	50.9880	50.9880	0.0143	0.0000	51.3450
Total	**0.0340**	**0.3223**	**0.2947**	**5.8000e-004**	**4.3500e-003**	**0.0150**	**0.0193**	**6.6000e-004**	**0.0139**	**0.0146**	**0.0000**	**50.9880**	**50.9880**	**0.0143**	**0.0000**	**51.3450**

3.7 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	6.3000e-003	1.2900e-003	4.0000e-005	8.6000e-004	1.0000e-005	8.7000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	3.4290	3.4290	1.7000e-004	0.0000	3.4332
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	8.5000e-004	5.3000e-004	6.0100e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.8538	1.8538	4.0000e-005	0.0000	1.8547
Total	**1.0100e-003**	**6.8300e-003**	**7.3000e-003**	**6.0000e-005**	**3.3300e-003**	**2.0000e-005**	**3.3600e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**5.2828**	**5.2828**	**2.1000e-004**	**0.0000**	**5.2880**

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	0.3908	1.8585	4.3494	0.0164	1.5122	0.0166	1.5288	0.4048	0.0156	0.4204	0.0000	1,533.7605	1,533.7605	0.0528	0.0000	1,535.0792
Unmitigated	0.3908	1.8585	4.3494	0.0164	1.5122	0.0166	1.5288	0.4048	0.0156	0.4204	0.0000	1,533.7605	1,533.7605	0.0528	0.0000	1,535.0792

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	1,249.00	181.36	74.29	3,966,119	3,966,119
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,249.00	181.36	74.29	3,966,119	3,966,119

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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Other Asphalt Surfaces	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Other Non-Asphalt Surfaces	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Parking Lot	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

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	75.6598	75.6598	3.1200e-003	6.5000e-004	75.9305
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.6598	75.6598	3.1200e-003	6.5000e-004	75.9305
NaturalGas Mitigated	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	14.7714	14.7714	2.8000e-004	2.7000e-004	14.8592
NaturalGas Unmitigated	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	14.7714	14.7714	2.8000e-004	2.7000e-004	14.8592

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					
High School	276805	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	14.7714	14.7714	2.8000e-004	2.7000e-004	14.8592
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4900e-003**	**0.0136**	**0.0114**	**8.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**14.7714**	**14.7714**	**2.8000e-004**	**2.7000e-004**	**14.8592**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	276805	1.4900e-003	0.0136	0.0114	8.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	14.7714	14.7714	2.8000e-004	2.7000e-004	14.8592
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4900e-003**	**0.0136**	**0.0114**	**8.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**14.7714**	**14.7714**	**2.8000e-004**	**2.7000e-004**	**14.8592**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	230740	73.5187	3.0400e-003	6.3000e-004	73.7817
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	6720	2.1411	9.0000e-005	2.0000e-005	2.1488
Total		**75.6599**	**3.1300e-003**	**6.5000e-004**	**75.9305**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	230740	73.5187	3.0400e-003	6.3000e-004	73.7817
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	6720	2.1411	9.0000e-005	2.0000e-005	2.1488
Total		**75.6599**	**3.1300e-003**	**6.5000e-004**	**75.9305**

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	0.1815	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-003
Unmitigated	0.1815	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-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	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-003
Total	**0.1815**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.3000e-003**	**2.3000e-003**	**1.0000e-005**	**0.0000**	**2.4500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3000e-003	2.3000e-003	1.0000e-005	0.0000	2.4500e-003
Total	**0.1815**	**1.0000e-005**	**1.1800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.3000e-003**	**2.3000e-003**	**1.0000e-005**	**0.0000**	**2.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.6974	0.0457	1.2200e-003	20.2012
Unmitigated	18.6974	0.0457	1.2200e-003	20.2012

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	1.37799 / 3.54341	18.6974	0.0457	1.2200e-003	20.2012
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**18.6974**	**0.0457**	**1.2200e-003**	**20.2012**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	1.37799 / 3.54341	18.6974	0.0457	1.2200e-003	20.2012
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**18.6974**	**0.0457**	**1.2200e-003**	**20.2012**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.9514	0.6472	0.0000	27.1315
Unmitigated	10.9514	0.6472	0.0000	27.1315

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	53.95	10.9514	0.6472	0.0000	27.1315
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.9514**	**0.6472**	**0.0000**	**27.1315**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	53.95	10.9514	0.6472	0.0000	27.1315
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.9514**	**0.6472**	**0.0000**	**27.1315**

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

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APPENDIX 4.2:

EMFAC2017

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: RIVERSIDE
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
RIVERSIDE	2022	HHDT	Aggregated	Aggregated	GAS	7.255051716	664.5948944	0.153526957	153.5269575	551883.0316	664.5948944	3918090.953	7.10	HHDT
RIVERSIDE	2022	HHDT	Aggregated	Aggregated	DSL	27819.82011	3904544.33	546.282737	546282.737		3904544.33			
RIVERSIDE	2022	HHDT	Aggregated	Aggregated	NG	316.9853667	12882.0286	5.446767633	5446.767633		12882.0286			
RIVERSIDE	2022	LDA	Aggregated	Aggregated	GAS	772785.866	30295680.28	950.2947165	950294.7165	956074.6572	30295680.28	31104496.06	32.53	LDA
RIVERSIDE	2022	LDA	Aggregated	Aggregated	DSL	7300.590587	301308.548	5.779940701	5779.940701		301308.548			
RIVERSIDE	2022	LDA	Aggregated	Aggregated	ELEC	12758.74743	507507.2353	0	0		507507.2353			
RIVERSIDE	2022	LDT1	Aggregated	Aggregated	GAS	82772.07046	3076687.964	113.8535898	113853.5898	113886.9867	3076687.964	3097672.244	27.20	LDT1
RIVERSIDE	2022	LDT1	Aggregated	Aggregated	DSL	39.17987902	864.4773595	0.033396863	33.39686287		864.4773595			
RIVERSIDE	2022	LDT1	Aggregated	Aggregated	ELEC	485.0753078	20119.80263	0	0		20119.80263			
RIVERSIDE	2022	LDT2	Aggregated	Aggregated	GAS	252998.013	9768781.977	384.1060904	384106.0904	385765.5036	9768781.977	9906416.269	25.68	LDT2
RIVERSIDE	2022	LDT2	Aggregated	Aggregated	DSL	1463.534782	64682.45233	1.659413246	1659.413246		64682.45233			
RIVERSIDE	2022	LDT2	Aggregated	Aggregated	ELEC	2319.019739	72951.84037	0	0		72951.84037			
RIVERSIDE	2022	LHDT1	Aggregated	Aggregated	GAS	20620.88251	680334.7046	63.19981722	63199.81722	96090.00978	680334.7046	1371393.63	14.27	LHDT1
RIVERSIDE	2022	LHDT1	Aggregated	Aggregated	DSL	20161.77202	691058.9252	32.89019256	32890.19256		691058.9252			
RIVERSIDE	2022	LHDT2	Aggregated	Aggregated	GAS	3286.375404	107419.4478	11.44267416	11442.67416	25303.82051	107419.4478	374281.6414	14.79	LHDT2
RIVERSIDE	2022	LHDT2	Aggregated	Aggregated	DSL	7795.76126	266862.1937	13.86114635	13861.14635		266862.1937			
RIVERSIDE	2022	MCY	Aggregated	Aggregated	GAS	36240.6615	267199.3063	6.981836229	6981.836229	6981.836229	267199.3063	267199.3063	38.27	MCY
RIVERSIDE	2022	MDV	Aggregated	Aggregated	GAS	208995.205	7586687.895	373.0302077	373030.2077	379343.7253	7586687.895	7808952.293	20.59	MDV
RIVERSIDE	2022	MDV	Aggregated	Aggregated	DSL	4324.736187	181512.7606	6.313517611	6313.517611		181512.7606			
RIVERSIDE	2022	MDV	Aggregated	Aggregated	ELEC	1262.694008	40751.63814	0	0		40751.63814			
RIVERSIDE	2022	MH	Aggregated	Aggregated	GAS	6006.899407	48243.06745	9.356650581	9356.650581	11275.46068	48243.06745	69133.58244	6.13	MH
RIVERSIDE	2022	MH	Aggregated	Aggregated	DSL	2591.605795	20890.51499	1.918810096	1918.810096		20890.51499			
RIVERSIDE	2022	MHDT	Aggregated	Aggregated	GAS	2027.159212	107896.4899	20.67464454	20674.64454	108170.6844	107896.4899	1082516.825	10.01	MHDT
RIVERSIDE	2022	MHDT	Aggregated	Aggregated	DSL	15610.0447	974620.3351	87.4960399	87496.0399		974620.3351			
RIVERSIDE	2022	OBUS	Aggregated	Aggregated	GAS	588.3426118	26677.78704	5.181782563	5181.782563	8000.723523	26677.78704	52401.56366	6.55	OBUS
RIVERSIDE	2022	OBUS	Aggregated	Aggregated	DSL	351.6438765	25723.77662	2.818940959	2818.940959		25723.77662			
RIVERSIDE	2022	SBUS	Aggregated	Aggregated	GAS	490.8817654	19662.47585	2.188356834	2188.356834	6997.25334	19662.47585	56211.13603	8.03	SBUS
RIVERSIDE	2022	SBUS	Aggregated	Aggregated	DSL	1154.012525	36548.66018	4.808896505	4808.896505		36548.66018			
RIVERSIDE	2022	UBUS	Aggregated	Aggregated	GAS	164.4551683	23154.43353	3.756059553	3756.059553	13187.75228	23154.43353	65715.39058	4.98	UBUS
RIVERSIDE	2022	UBUS	Aggregated	Aggregated	DSL	1.105797941	58.57190354	0.006566346	6.56634569		58.57190354			
RIVERSIDE	2022	UBUS	Aggregated	Aggregated	ELEC	5.058469431	271.5303965	0	0		271.5303965			
RIVERSIDE	2022	UBUS	Aggregated	Aggregated	NG	308.4780966	42230.85475	9.425126379	9425.126379		42230.85475			

EMFAC2017 (v1.0.2) Emissions Inventory
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Region: RIVERSIDE
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
RIVERSIDE	2023	HHDT	Aggregated	Aggregated	GAS	7.088213861	706.002724	0.159011057	159.0110574	539050.4842	706.002724	3998900.694	7.42	HHDT
RIVERSIDE	2023	HHDT	Aggregated	Aggregated	DSL	28234.19178	3983728.886	532.8663115	532866.3115		3983728.886			
RIVERSIDE	2023	HHDT	Aggregated	Aggregated	NG	355.8192923	14465.8062	6.025161593	6025.161593		14465.8062			
RIVERSIDE	2023	LDA	Aggregated	Aggregated	GAS	794639.2029	30779832.27	939.6757195	939675.7195	945614.9631	30779832.27	31736952.65	33.56	LDA
RIVERSIDE	2023	LDA	Aggregated	Aggregated	DSL	7815.519769	317502.0366	5.939243578	5939.243578		317502.0366			
RIVERSIDE	2023	LDA	Aggregated	Aggregated	ELEC	15793.22136	639618.3379	0	0		639618.3379			
RIVERSIDE	2023	LDT1	Aggregated	Aggregated	GAS	84985.27695	3138138.903	113.0505146	113050.5146	113081.2712	3138138.903	3167809.264	28.01	LDT1
RIVERSIDE	2023	LDT1	Aggregated	Aggregated	DSL	36.35712403	808.0659384	0.030756577	30.75657687		808.0659384			
RIVERSIDE	2023	LDT1	Aggregated	Aggregated	ELEC	683.9080674	28862.29498	0	0		28862.29498			
RIVERSIDE	2023	LDT2	Aggregated	Aggregated	GAS	259439.0419	9916616.973	376.5423108	376542.3108	378303.8656	9916616.973	10080894.42	26.65	LDT2
RIVERSIDE	2023	LDT2	Aggregated	Aggregated	DSL	1634.209588	70613.82663	1.761554855	1761.554855		70613.82663			
RIVERSIDE	2023	LDT2	Aggregated	Aggregated	ELEC	3040.981025	93663.62252	0	0		93663.62252			
RIVERSIDE	2023	LHDT1	Aggregated	Aggregated	GAS	20379.39989	669594.6702	61.48191588	61481.91588	93736.16107	669594.6702	1356378.099	14.47	LHDT1
RIVERSIDE	2023	LHDT1	Aggregated	Aggregated	DSL	20310.55706	686783.4285	32.25424519	32254.24519		686783.4285			
RIVERSIDE	2023	LHDT2	Aggregated	Aggregated	GAS	3277.015398	106175.6322	11.18653986	11186.53986	24832.61929	106175.6322	372313.6711	14.99	LHDT2
RIVERSIDE	2023	LHDT2	Aggregated	Aggregated	DSL	7906.78759	266138.039	13.64607942	13646.07942		266138.039			
RIVERSIDE	2023	MCY	Aggregated	Aggregated	GAS	36804.72978	267173.3255	6.983217686	6983.217686	6983.217686	267173.3255	267173.3255	38.26	MCY
RIVERSIDE	2023	MDV	Aggregated	Aggregated	GAS	209260.3837	7517129.194	358.095213	358095.213	364562.2474	7517129.194	7765345.052	21.30	MDV
RIVERSIDE	2023	MDV	Aggregated	Aggregated	DSL	4651.863516	191155.3985	6.46703442	6467.03442		191155.3985			
RIVERSIDE	2023	MDV	Aggregated	Aggregated	ELEC	1809.970435	57060.4591	0	0		57060.4591			
RIVERSIDE	2023	MH	Aggregated	Aggregated	GAS	5776.95938	46142.35748	8.858874447	8858.874447	10718.84555	46142.35748	66539.16407	6.21	MH
RIVERSIDE	2023	MH	Aggregated	Aggregated	DSL	2588.434841	20396.80659	1.8599711	1859.9711		20396.80659			
RIVERSIDE	2023	MHDT	Aggregated	Aggregated	GAS	2097.292591	111900.5641	21.15571054	21155.71054	106071.9459	111900.5641	1098108.234	10.35	MHDT
RIVERSIDE	2023	MHDT	Aggregated	Aggregated	DSL	15231.0851	986207.6701	84.91623531	84916.23531		986207.6701			
RIVERSIDE	2023	OBUS	Aggregated	Aggregated	GAS	588.235633	26194.80523	5.020584528	5020.584528	7846.768453	26194.80523	52772.59344	6.73	OBUS
RIVERSIDE	2023	OBUS	Aggregated	Aggregated	DSL	354.6623224	26577.78821	2.826183925	2826.183925		26577.78821			
RIVERSIDE	2023	SBUS	Aggregated	Aggregated	GAS	506.2151924	20097.2932	2.225975375	2225.975375	7074.38034	20097.2932	57336.67574	8.10	SBUS
RIVERSIDE	2023	SBUS	Aggregated	Aggregated	DSL	1175.903827	37239.38255	4.848404965	4848.404965		37239.38255			
RIVERSIDE	2023	UBUS	Aggregated	Aggregated	GAS	165.4254964	23291.05069	3.744875418	3744.875418	13213.36354	23291.05069	66103.12843	5.00	UBUS
RIVERSIDE	2023	UBUS	Aggregated	Aggregated	DSL	0.141961099	11.67769301	0.001254634	1.254634181		11.67769301			
RIVERSIDE	2023	UBUS	Aggregated	Aggregated	ELEC	4.058469431	248.5082415	0	0		248.5082415			
RIVERSIDE	2023	UBUS	Aggregated	Aggregated	NG	312.298405	42551.8918	9.467233488	9467.233488		42551.8918			

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