Barker Logistics

GREENHOUSE GAS ANALYSIS

COUNTY OF RIVERSIDE

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12217-04 GHG Report

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
2017 Scoping Plan	*Final 2017 Scoping Plan Update*
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
ABAU	Adjusted Business As Usual
AFUE	Annual Fuel Utilization Efficiency
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	*Placentia Logistics Air Quality Impact Analysis*
BAU	Business As Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
$C_2H_2F_4$	Tetrafluroethane
$C_2H_4F_2$	Ethylidene Fluoride
CAA	Federal Clean Air Act
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CEQA Guidelines	*2019 CEQA Statute and Guidelines*
CDFA	California Department of Food and Agriculture

CF_4	Tetrafluoromethane
CFC	Chlorofluorocarbons
CFC-113	Trichlorotrifluoroethane
CH_4	Methane
CNRA	California Natural Resources Agency
CNRA 2009	*2009 California Climate Adaptation Strategy*
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
County	County of Riverside
CPUC	California Public Utilities Commission
CRRC	Cool Roof Rating Council
CTC	California Transportation Commission
DOF	Department of Finance
DWR	Department of Water Resources
EER	Energy Efficiency Ratio
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
FED	Functional Equivalent Document
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GO-Biz	Governor's Office of Business and Economic Development
gpm	Gallons Per Minute
GWP	Global Warming Potential
H_2O	Water
HERS	Home Energy Rating System
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
HSPF	Heating Seasonal Performance Factor
HVAC	Heating, Ventilation, Air Conditioning

I-215	Interstate 215
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	Independent System Operator
kWh	Kilowatt Hours
lbs	Pounds
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MD	Medium Duty
MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Tucks
MMR	Mandatory Reporting Rule
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
$MMTCO_2e$/yr	Million Metric Ton of Carbon Dioxide Equivalent Per Year
MT/yr	Metric Tons Per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
$MTCO_2e$/yr	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWELO	California Department of Water Resources' Model Water Efficient
N_2O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF_3	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO_X	Nitrogen Oxides

Non-Annex I	Developing Nations
OAL	Office of Administrative Law
OPR	Office of Planning and Research
PFC	Perfluorocarbons
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Barker Logistics
RivTAM	Riverside County Traffic Analysis Model
RPS	Renewable Portfolio Standards
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SAR	Second Assessment Report
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1078	Renewable Portfolio Standards
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
sf	Square Feet
SF_6	Sulfur Hexaflouride
SGC	Strategic Growth Council
SHGC	Solar Heat Gain Coefficient
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
SWCRB	State Water Resources Control Board
TIA	*Placentia Logistics Traffic Impact Analysis*
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States
UNFCCC	United Nations' Framework Convention on Climate Change

URBEMIS	Urban Emissions
UTR	Utility Tractors
VFP	Vehicle Fueling Positions
VMT	Vehicle Miles Traveled
WCI	Western Climate Initiative
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Barker Logistics Greenhouse Gas Analysis* (GHGA) is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (*CEQA Guidelines* (1). Table ES-1 shows the findings of significance for each potential greenhouse gas (GHG) impact under CEQA before and after any required mitigation measures described below.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: The Project would not generate direct or indirect GHG emission that would result in a significant impact on the environment.	3.7	*Potentially Significant*	*Less Than Significant*
GHG Impact #2: The Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	3.7	*Potentially Significant*	*Less Than Significant*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations (CCR)). Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10% less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or

equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent (%) by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, and therefore are accounted for in the Project's emission calculations.

ES.3 COUNTY OF RIVERSIDE CLIMATE ACTION PLAN (CAP) MEASURES

The County of Riverside CAP (December 8, 2015) was designed under the premise that the County of Riverside, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner.

The County of Riverside CAP Update, November 2019 (CAP Update) establishes GHG emission reduction programs and regulations that correlate with and support evolving State GHG emissions reduction goals and strategies. The CAP Update includes reduction targets for year 2030 and year 2050. These reduction targets require the County to reduce emissions by at least 525,511 metric tons of CO_2e ($MTCO_2e$) below the Adjusted Business As Usual (ABAU)[1] scenario by 2030 and at least 2,982,948 $MTCO_2e$ below the ABAU scenario by 2050 (CAP Update, p.7-1).

To evaluate consistency with the CAP Update, the County has implemented CAP Update Screening Tables (Screening Tables) to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated in development projects. To this end, the Screening Tables establish categories of GHG Implementation Measures. Under each Implementation Measure category, mitigation or project design features (collectively "features") are assigned point values that correspond to the minimum GHG emissions reduction that would result from each feature. Projects that yield at least 100 points are considered to be consistent with the GHG emissions reduction quantities anticipated in the County's GHG Technical Report and support the GHG emissions reduction targets established under the CAP Update. The potential for such projects to generate direct or indirect GHG emissions that would result in a significant impact on the environment; or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs would be considered less-than-significant.

[1] ABAU Scenario reflects GHG emissions reductions achieved through anticipated future State actions (CAP Update, p. 2-1).

MM GHG-1

Prior to issuance of each building permit, the Project Applicant shall provide documentation to the County of Riverside Building Department demonstrating implementation of CAP measure R2-CE1, which includes on-site renewable energy production. This measure is required for any tentative tract map, plot plan, or conditional use permit that proposes development or one or more new buildings totaling more than 100,000 gross square feet (sf) of commercial, office, industrial, or manufacturing development to offset its energy demand. For industrial developments, measure R2-CE1 requires a 20 percent offset in energy demand.

MM GHG-2

Pursuant to MM GHG-2, the Project final plans and designs would conform to provisions of the CAP Update through implementation of the Screening Table Measures listed at Table ES-2.

The Project shall implement Screening Table Measures providing for a minimum 100 points per the County Screening Tables. The Project would be consistent with the CAP Update's requirement to achieve at least 100 points and thus the Project is considered to have a less than significant individual and cumulatively considerable impact on GHG emissions. The County shall verify incorporation of the identified Screening Table Measures within the Project building plans and site designs prior to the issuance of building permit(s) and/or site plans (as applicable). The County shall verify implementation of the identified Screening Table Measures prior to the issuance of Certificate(s) of Occupancy.

An example of how the Project could achieve a minimum of 100 Screening Table Points is provided at Table ES-2.

TABLE ES-2: CAP UPDATE CONSISTENCY – INDUSTRIAL LAND USE

Feature	Description	Points
EE10.A.1 Insulation	Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38)	11
EE10.A.2 Windows	Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less Solar Heat Gain Coefficient [SHGC])	7
EE10-A.3 Cool Roofs	Modest Cool Roof (Cool Roof Rating Council [CRRC] Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	7
EE10.A.4 Air Infiltration	Blower Door Home Energy Rating System (HERS) Verified Envelope Leakage of equivalent	6
EE10.B.1 Heating/Cooling Distribution System	Model Duct Insulation (R-6)	5
EE10.B.2 Space Heating/Cooling Equipment	Improved Efficiency Heating, Ventilation, and Air Conditioning (HVAC) (Energy Efficiency Ratio [EER] 14/78% Annual Fuel Utilization Efficiency [AFUE] or 8 Heating Seasonal Performance Factor [HSPF])	4

Feature	Description	Points
EE10B.4 Water Heaters	High Efficiency Water Heater (0.72 Energy Factor)	10
EE10.B.5 Daylighting	All rooms daylighted	1
EE10.B.6 Artificial Lighting	High Efficiency Lights (50% of in-unit fixtures are high efficiency)	7
W2.E.2 Toilets	Water Efficient Toilets/Urinals (1.5 gallons per minute [gpm])	6
	Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	
W2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	2
T4.B.1 Electric Vehicle (EV) Recharging	Install EV charging stations in garages/parking areas	40[2]
TOTAL POINTS EARNED BY INDUSTRIAL PROJECT		***106***

[2] The Project is anticipated to include 5 electric vehicle charging stations. Per the Screening Tables, each station is 8 points.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the Barker Logistics (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the proposed Project.

1.1 SITE LOCATION

The proposed Barker Logistics site is located on the northeast corner of Patterson Avenue and Placentia Street, in unincorporated County of Riverside, as shown on Exhibit 1-A.

The Project site is currently vacant. Existing land uses near the site include residential homes located north, south, east, and west of the Project site. Existing and future-designated Business Park use is located east of the Project site. Interstate 215 (I-215) is located approximately 1,600 feet east of the Project site; Burlington National Santa Fe (BNSF) railroad lines are located roughly 1,500 feet east of the Project site; and the March Air Reserve Base/Inland Port Airport (MARB/IPA) is located roughly 2.5 miles northeast of the Project site.

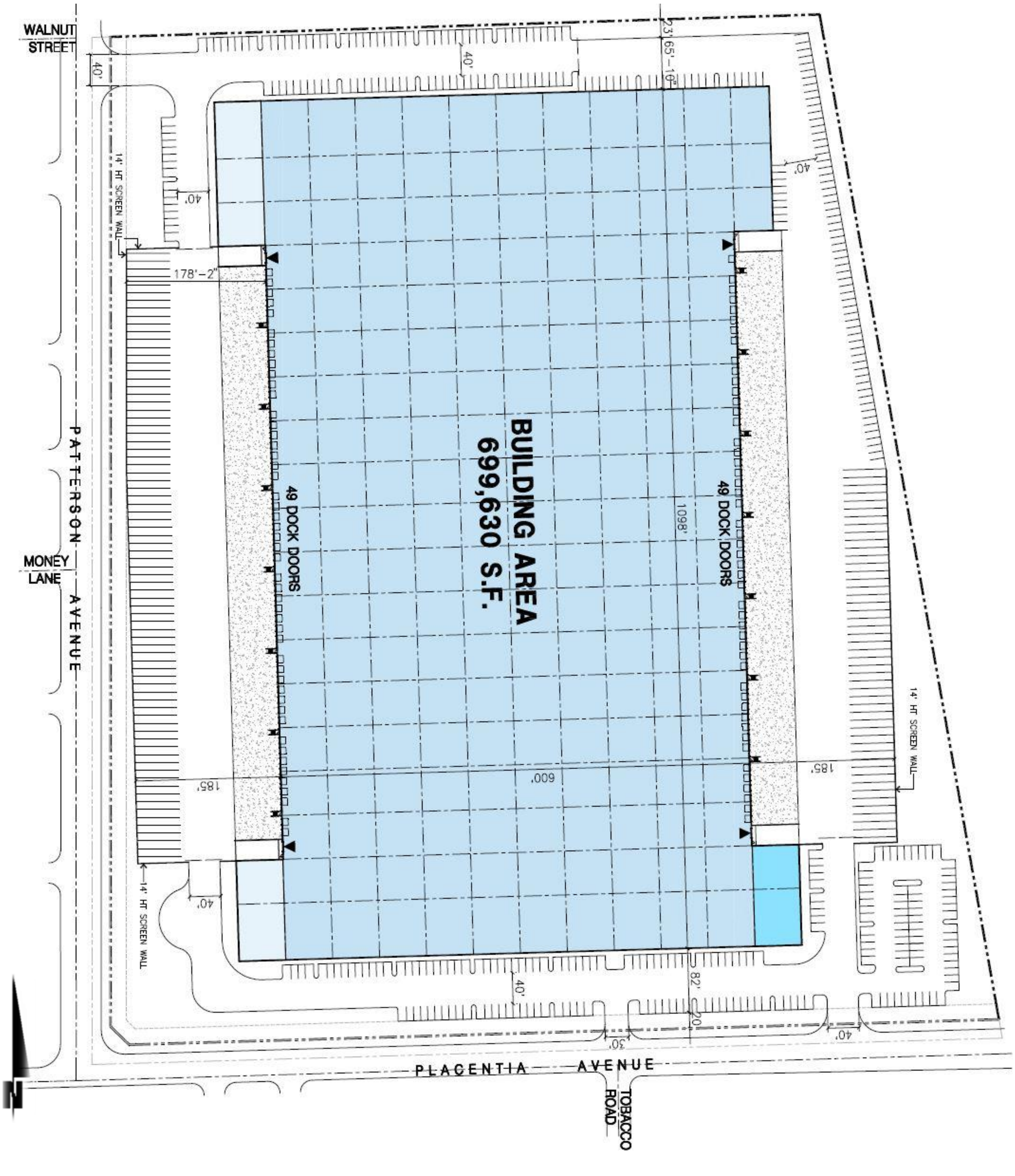
1.2 PROJECT DESCRIPTION

The Project is proposed to consist of up to 699,630 square feet (sf) of high-cube fulfillment center use, as shown on Exhibit 1-B. The Project is anticipated to be constructed in a single phase by the year 2021.

Per the *Barker Logistics Traffic Impact Analysis* (TIA) prepared by Urban Crossroads, Inc. the Project is expected to generate a total of approximately 1,548 trip-ends per day (actual vehicles) and includes 276 truck trip-ends per day (12). This GHG study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: SITE PLAN



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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated (see Table 3-1 later in this report) because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (13).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (14).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (15).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (16).

GHGs	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (17).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (18).

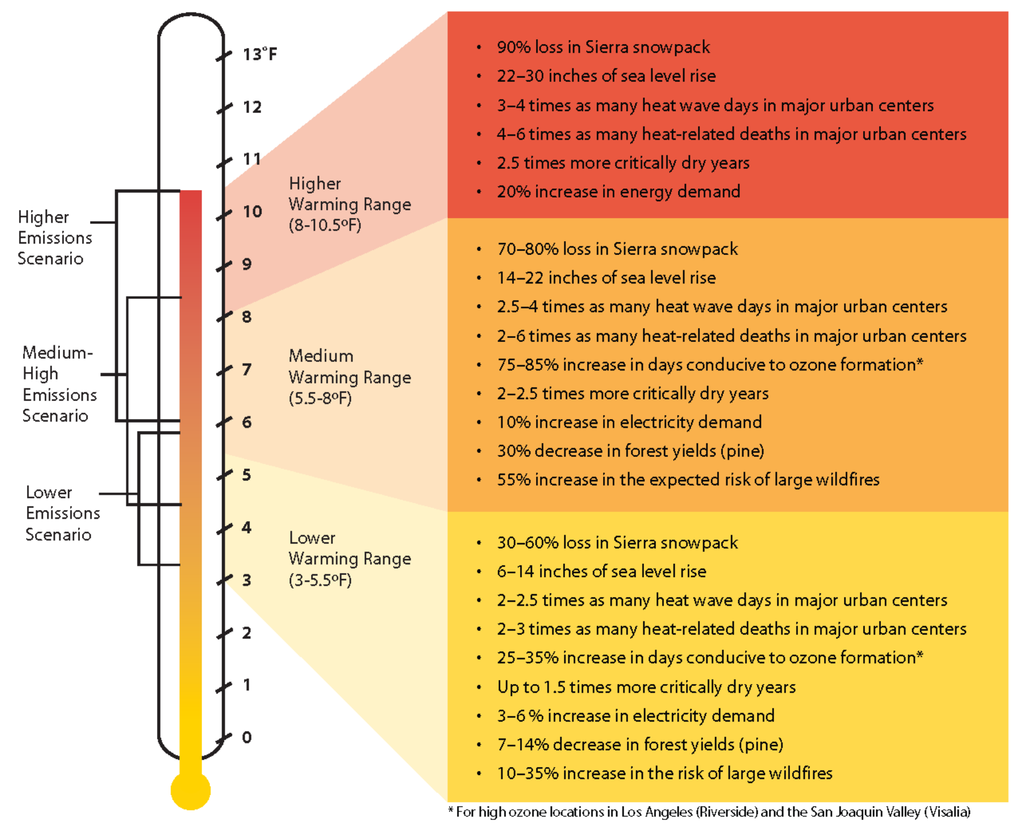
GHGs	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (18).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years (19).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

GHGs	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), fluoroform (CHF_3), 1,1,1,2-tetrafluoroethane (CH_2FCF), and 1,1-difluoroethane (CH_3CF_2). Prior to 1990, the only significant emissions were of CHF_3. CH_2FCF emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (20). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (21).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (22).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (23). Exhibit 2-A presents the potential impacts of global warming (24).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GWP

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 2nd Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 23,900 for SF_6 and GWP for the IPCC's 5th Assessment Report range from 1 for CO_2 to 23,500 for SF_6 (25).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2nd Assessment Report	5th Assessment Report
CO_2	See*	1	1
CH_4	12 .4	21	28
N_2O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF_6	3,200	23,900	23,500

*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.
Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

2.5 GHG Emissions Inventories

2.5.1 Global

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2017. Based on the latest available data, the sum of these emissions totaled approximately 29,216,501 gigagram (Gg) CO_2e[3] (26) (27) as summarized on Table 2-3.

[3] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2017 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2017.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION [4]

Emitting Countries	GHG Emissions (Gg CO_2e)
China	11,911,710
United States	6,456,718
European Union (28-member countries)	4,323,163
India	3,079,810
Russian Federation	2,155,470
Japan	1,289,630
Total	**29,216,501**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls, but is still a substantial contributor to the U.S. emissions inventory total (28). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons of CO_2e ($MMTCO_2e$) per year (29).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of

[4] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in https://www.climatewatchdata.org site to reference Non-Annex I countries of China and India.

death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

2.6.4 FORESTS AND LANDSCAPES

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

2.6.5 RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.7 REGULATORY SETTING

2.7.1 INTERNATIONAL

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (CONVENTION)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the Convention. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014 more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the United Nations. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2 °C, while urging efforts to limit the increase to 1.5 degrees;

- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (30).

On June 2, 2017 President Donald Trump announced his intention to withdraw from the Paris Agreement. It should be noted that under the terms of the agreement, the United Sates cannot formally announce its resignation until November 4, 2019. Subsequently, withdrawal would be effective one year after notification in 2020.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the Supreme Court found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.

- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the U.S. Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (31).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10-percent reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend exiting CAFE and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (32).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour, based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016 the U.S. Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards.

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (33):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs will have to comply with CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel will eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

2.7.3 CALIFORNIA

LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

EXECUTIVE ORDER S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

CARB approved the 1990 GHG emissions level of 427 $MMTCO_2e$ on December 6, 2007 (34). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (35). At that level, a 28.4% reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels (36) .

PROGRESS IN ACHIEVING AB 32 TARGETS AND REMAINING REDUCTIONS REQUIRED

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (37). The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 $MMTCO_2e$ (AB 32 2020 target)
- 2000: 463 $MMTCO_2e$ (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 $MMTCO_2e$ (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in achieving its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 $MMTCO_2e$ BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

SB 375 – THE SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008

Passing the Senate on August 30, 2008, Senate Bill (SB) 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30% reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

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 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% 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% to 50% by 2030, with interim targets of 40% by 2024, and 25% 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 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.

SB 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

CARB SCOPING PLAN

CARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (35). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33%;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS; and
- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

CARB approved the First Scoping Plan Update on May 22, 2014. The First Scoping Plan Update identifies the next steps for California's climate change strategy. The First Scoping Plan Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050. The First Scoping Plan Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. The First Scoping Plan Update does not set new targets for the State but describes a path that would achieve the long term 2050 goal of Executive Order S-3-05 for emissions to decline to 80% below 1990 levels by 2050 (37).

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the amount of reductions California must achieve to return to the 1990 emissions level by 2020 as required by AB 32. The no-action scenario is known as "business-as-usual" or BAU. CARB originally defined the BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the Scoping Plan.

As part of CEQA compliance for the Scoping Plan, CARB prepared a Supplemental Functional Equivalent Document (FED) in 2011. The FED included an updated 2020 BAU emissions inventory projection based on current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth, by sector, from the state's average emissions from 2006–2008. The new BAU estimate includes emission reductions for the million-solar-roofs program, the AB 1493 motor vehicle GHG emission standards, and the LCFS. In addition, CARB factored into the 2020 BAU inventory emissions reductions associated with 33% RPS for electricity generation. The updated BAU estimate of 507 $MMTCO_2e$ by 2020 requires a reduction of 80 $MMTCO_2e$, or a 16% reduction below the estimated BAU levels to return to 1990 levels (i.e., 427 $MMTCO_2e$) by 2020.

In order to provide a BAU reduction that is consistent with the original definition in the Scoping Plan and with threshold definitions used in thresholds adopted by lead agencies for CEQA purposes and many CAPs, the updated inventory without regulations was also included in the Supplemental FED. CARB 2020 BAU projection for GHG emissions in California was originally estimated to be 596 $MMTCO_2e$. The updated CARB 2020 BAU projection in the Supplemental FED is 545 $MMTCO_2e$. Considering the updated BAU estimate of 545 $MMTCO_2e$ by 2020, CARB estimates a 21.7% reduction below the estimated statewide BAU levels is necessary to return to 1990 emission levels (i.e., 427 $MMTCO_2e$) by 2020, instead of the approximate 28.4% BAU reduction previously reported under the original Climate Change Scoping Plan (35).

2017 CLIMATE CHANGE SCOPING PLAN UPDATE

In compliance with AB 32 and the 2008 Scoping Plan, the target year 2020 has been fulfilled and will look onward to the *2017 Scoping Plan* that should be in compliance by 2030.

In November 2017, CARB released the *2017 Scoping Plan* Update, which identifies the State's post-2020 reduction strategy. The *2017 Scoping Plan* Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The *2017 Scoping Plan* Update establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *2017 Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.

- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero-emission vehicles (ZEV) trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and hydroflurocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the *2017 Scoping Plan* acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the *2017 Scoping Plan* Update also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the 2020 reduction targets under AB 32 and could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that GHG emissions through 2020 could range from 317 to 415 $MTCO_2e$ per year ($MTCO_2e$/yr), "indicating that existing state policies will likely allow California to meet its target [of 2020 levels under AB 32]." CALGAPS also showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$/yr, indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (38) (39).

CAP-AND-TRADE PROGRAM

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020 and ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. See Title 17 of the CCR §§ 95800 to 96023). The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25.000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25.000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" (30) for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities.*

Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (CARB 2014)."

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

"The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33% [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85% of California's GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures (37)*."*

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with VMT are covered by the Cap-and-Trade Program**Invalid source specified.**. In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[5]

2.7.3.1 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy (CNRA 2009) was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to

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[5] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of CARB Scoping Plan for the implementation of AB 32, the Court enjoined CARB from further rulemaking under AB 32 until CARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, CARB filed an appeal. On June 24, 2011, the Court of Appeal granted CARB's petition staying the trail court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, CARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. CARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable for local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

EXECUTIVE ORDER S-01-07 (LCFS)

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the LCFS on April 23, 2009.

The LCFS was challenged in the U.S. District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012, pending final ruling on appeal, allowing CARB to continue to implement and enforce the regulation. The Ninth Circuit Court's decision, filed September 18, 2013, vacated the preliminary injunction. In essence, the court held that LCFS adopted by CARB were not in conflict with federal law. On August 8, 2013, the Fifth District Court of Appeal (California) ruled CARB failed to comply with CEQA and the Administrative Procedure Act (APA) when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal reversed the trial court's judgment and directed issuance of a writ of mandate setting aside Resolution 09-31 and two executive orders of CARB approving LCFS regulations promulgated to reduce GHG emissions. However, the court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while CARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. On November 16, 2015 the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

EXECUTIVE ORDER B-55-18 AND SB 100

Executive Order B-55-18 and SB 100. SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises

California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.7.3.2 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR

CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

TITLE 24 CCR

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code 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. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that became effective January 1, 2020.

Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction waste and demolition ordinances and defers to them as the ruling guidance provided they establish a minimum 65% diversion requirement.

The code also provides exemptions for areas not served by construction waste and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG (GHG) emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the SCAB and across the State of California. For example, the 2019 Title 24 standards will require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive technologies for residential buildings, and update indoor and outdoor lighting requirements 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 use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings (such as the Project) will use approximately 30% less energy due to lighting upgrade requirements (19).

Because the Project will be constructed after January 1, 2019, the 2019 CALGreen standards are applicable to the Project and require, among other items (20):

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- Electric vehicle charging stations. New construction shall facilitate the future installation of electric vehicle supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3).
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8)
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section

5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (5.303.1.1 and 5.303.1.2).
- Outdoor water use in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

MWELO

The MWELO was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20% consistent with (SBX-7-7) 2020 mandate are expected upon compliance with the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed Department of Water Resources (DWR) to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015 effective December 15, 2015. New development projects that include landscape areas of 500 sf or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

CARB REFRIGERANT MANAGEMENT PROGRAM

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

TRACTOR-TRAILER GHG REGULATION

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

PHASE I AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS

CARB has adopted a new regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing HD vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. In September 2011, the EPA adopted their new rule for HDTs and engines. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements begin with model year 2014 with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings, which include a) HD pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year HDT vehicles, including trailers. But as discussed above, the EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

In February 2019, the OAL approved the Phase 2 Heavy-Duty Vehicle GHG Standards and became effective April 1, 2019. The Phase 2 GHG standards are needed to offset projected VMT growth and keep heavy-duty truck CO_2 emissions declining. The federal Phase 2 standards establish for the first time, federal emissions requirements for trailers hauled by heavy-duty tractors. The federal Phase 2 standards are more technology-forcing than the federal Phase 1 standards, requiring manufacturers to improve existing technologies or develop new technologies to meet the standards. The federal Phase 2 standards for tractors, vocational vehicles, and heavy-duty pick-up trucks and vans (PUVs) will be phased-in from 2021-2027, additionally for trailers, the standards are phased-in from 2018 (2020 in California) through 2027 (40).

SB 97 AND THE CEQA GUIDELINES UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA.

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the CEQA Guidelines for implementing the CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 1506.4 was amended to state that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (41).

2.7.4 Regional

The project is within the South Coast Air Basin (SCAB), which is under the jurisdiction of the SCAQMD.

SCAQMD

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, that could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
    - Residential and Commercial land use: 3,000 $MTCO_2e$/yr
    - Industrial land use: 10,000 $MTCO_2e$/yr
    - Based on land use type: residential: 3,500 $MTCO_2e$/yr; commercial: 1,400 $MTCO_2e$/yr; or mixed use: 3,000 $MTCO_2e$/yr
- Tier 4 has the following options:
    - Option 1: Reduce BAU emissions by a certain percentage; this percentage is currently undefined.
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 $MTCO_2e$/SP/year for projects and 6.6 $MTCO_2e$/SP/year for plans;
    - Option 3, 2035 target: 3.0 $MTCO_2e$/SP/year for projects and 4.1 $MTCO_2e$/SP/year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post GWPs.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

COUNTY OF RIVERSIDE

2.7.4.1 CLIMATE ACTION PLAN

The County of Riverside CAP (December 8, 2015) was designed under the premise that the County of Riverside, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner.

The County of Riverside Climate Action Plan Update, November 2019 (CAP Update) establishes GHG emission reduction programs and regulations that correlate with and support evolving State GHG emissions reduction goals and strategies. The CAP Update includes reduction targets for year 2030 and year 2050. These reduction targets require the County to reduce emissions by at least 525,511 MT CO2e below the ABAU[6] scenario by 2030 and at least 2,982,948 MT CO2e below the ABAU scenario by 2050 (CAP Update, p.7-1)

To evaluate consistency with the CAP Update, the County has implemented CAP Update Screening Tables (Screening Tables) to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated in development projects. To this end, the Screening Tables establish categories of GHG Implementation Measures. Under each Implementation Measure category, mitigation or project design features (collectively "features") are assigned point values that correspond to the minimum GHG emissions reduction that would result from each feature. Projects that yield at least 100 points are considered to be consistent with the GHG emissions reduction quantities anticipated in the County's GHG Technical Report and support the GHG emissions reduction targets established under the CAP Update. The potential for such projects to generate direct or indirect GHG emissions that would result in a significant impact on the environment; or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs would be considered less-than-significant.

2.8 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

The CAP Update identifies a two-step approach in evaluating GHG emissions. First, a screening threshold of 3,000 $MTCO_2e$/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 $MTCO_2e$/yr will be required to quantify and disclose the anticipated GHG emissions then either 1) demonstrates GHG emissions at project buildout year levels of efficiency and includes project design features and/or mitigation measures to reduce GHG emissions or 2) garner 100 points through the Screening Tables.

Projects that garner at least 100 points (equivalent to an approximate 49% reduction in GHG emissions) are determined to be consistent with the reduction quantities anticipated in the County's GHG Technical Report, and consequently would be consistent with the CAP Update. As such, projects that achieve a total of 100 points or more are considered to have a less than significant individual and cumulative impact on GHG emissions.

[6] ABAU Scenario reflects GHG emissions reductions achieved through anticipated future State actions (CAP Update, p. 2-1).

After a review of the screening tables, it has been determined that the Project would garner 106 points and thus the Project would be consistent with the CAP Update and thus the Project is considered to have a less than significant individual and cumulative impact on GHG emissions and further quantification is not required per the CAP Update. Appendix 3.5 includes a copy of the Screening Tables.

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3 PROJECT GHG IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant GHG impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (42):

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

3.3 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD) EMPLOYED TO ANALYZE GHG EMISSIONS

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; and quantify applicable air quality and GHG reductions achieved from mitigation measures (43). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 through 3.3. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

3.3.1 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 (44). This GHGA utilizes annual EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities.

Because the EMFAC2017 emission rates are associated with vehicle fuel types while CalEEMod vehicle emission factors are aggregated to include all fuel types for each individual vehicle class, the EMFAC2017 emission rates for different fuel types of a vehicle class are averaged by activity or by population and activity to derive CalEEMod emission factors. The equations applied to obtain CalEEMod vehicle emission factors for each emission type are detailed in CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod* (45).

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS (LCA) NOT REQUIRED

A full LCA for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (46). Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (47). Additionally, the science to calculate life cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Construction activities associated with the Project would result in emissions of CO_2 and CH_4 from construction activities. The report *Barker Logistics Air Quality Impact Analysis Report* (AQIA) by Urban Crossroads, Inc., contains detailed information regarding construction activity (48).

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational phase GHG emissions (49). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources:

- Area Source Emissions
- Energy Use Emissions
- Mobile Source Emissions
- On-site Cargo Handling Equipment Emissions
- Solid Waste
- Water Supply, Treatment, and Distribution

3.6.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.6.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting[7]. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod default parameters were used.

TITLE 24 ENERGY EFFICIENCY STANDARDS

The California Energy Code 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.

The 2019 version of California Energy Code (Title 24) was adopted by the CEC and became effective on January 1, 2020. The CEC anticipates that nonresidential buildings will use approximately 30% less energy (19). The CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 30% in order to reflect consistency with the 2019 Title 24 standard.

COUNTY OF RIVERSIDE CLIMATE ACTION PLAN

The Project is required to comply with CAP Update Measure R2-CE1. CAP Update Measure R2-CE1 requires that the Project provide onsite renewable energy production generation comprising at least 20% of the Project energy demand.

3.6.3 MOBILE SOURCE EMISSIONS

Project-related GHG emissions derive predominantly from mobile sources. In this regard, approximately 76% (by weight) of all Project GHG emissions would be generated by mobile sources (vehicles). Neither the Project Applicant nor the County has any regulatory control over

[7] The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and EPA.

As previously stated, the CARB and the POLA and POLB have adopted several iterations of regulations for diesel trucks that are aimed at reducing DPM. More specifically, the CARB Drayage Truck Regulation, the CARB statewide On-road Truck and Bus Regulation, and the POLA and POLB CTP require accelerated implementation of “clean trucks” into the statewide truck fleet (50). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. As summarized previously herein, as the result of CARB and EPA actions, basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

The Project related GHG emissions derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, TIA were utilized in this analysis. Per TIA, the Project is expected to generate a total of approximately 1,272 two-way vehicular trips per day (636 inbound and 636 outbound) which includes 276 two-way truck trips per day (138 inbound and 138 outbound) (12). The passenger car and truck fleet for the proposed industrial use are broken down by passenger car and truck type (or axle type).

TRIP LENGTH

Trip lengths for passenger cars were determined based on the regional traffic model. The Riverside County Traffic Analysis Model (RivTAM) was used to estimate trip lengths for the Project’s passenger cars.

More specifically, RivTAM was utilized to conduct select zone model runs for the proposed Project. RivTAM was prepared for the Riverside County Transportation Department as a sub-regional model based on Southern California Association of Governments (SCAG) model, which includes the entire SCAG region.

Per the *Barker Logistics Vehicle Miles Traveled (VMT) Assessment* prepared by Urban Crossroads, Inc., the average trip length for automobiles (passenger cars, small trucks, etc.) was calculated to be 12.5 miles and 34.3 miles for heavy trucks (51).

The use of a travel demand model is supported by substantial evidence since the information contained in the model is specific to the region and for the land use type being proposed. Furthermore, the use of travel demand models is also a recommended practice that is being promoted by the OPR in their updated CEQA guidelines with respect to Senate Bill (SB) 743. Specifically, the latest technical advisory documentation published by OPR (52) explicitly states that:

> *“…agencies can use travel demand models or survey data to estimate existing trip lengths and input those into sketch models such as CalEEMod to achieve more accurate results. Whenever possible, agencies should input localized trip lengths into a sketch model to tailor the analysis to the project location.”*

The procedure described by OPR in their SB 743 technical advisory is precisely the method that has been used to calculate trip lengths and consequently VMT for the Project.

APPROACH FOR ANALYSIS OF THE PROJECT

Two Separate model runs were utilized for each phase in order to more accurately model emissions resulting from passenger car and truck operations.

PASSENGER CARS

The first run analyzed passenger car emissions, incorporated the calculated trip length of 12.5 miles for passenger cars and an assumption of 100% primary trips.

It is important to note that although the TIA does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[8] & LDT2[9]), and Medium-Duty-Vehicles (MDV) vehicle types. In order to account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

TABLE 3-1: PASSENGER CAR FLEET MIX

Land Use	Vehicle Type	%
High-Cube Fulfillment Center	LDA	61.37
	LDT1	4.25
	LDT2	20.97
	MDV	13.41

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicles types.

TRUCKS

The second run analyzed truck emissions, incorporated the SCAQMD recommended truck trip length of 34.3 miles and an assumption of 100% primary trips.

In order to be consistent with the TIA, trucks are broken down by truck type. Per the TIA, the truck fleet mix for the high-cube fulfillment center use is comprised of 2 different truck types: 2-4-axle and 5+-axle trucks. For purposes of analysis, it is assumed that 25% of the 2-4 axle trucks are Light-Heavy-Duty Trucks (LHDT), 25% are Medium-Heavy-Duty Trucks (MHDT), and the remaining 50% are Heavy-Heavy-Duty Trucks (HHDT). In order to account for emissions generated by trucks, the following fleet mix was utilized in this analysis:

[8] 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.
[9] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

TABLE 3-2: TRUCK FLEET MIX

Land Use	Vehicle Type	%
High-Cube Fulfillment Center	LHDT	10.69
	MHDT	10.69
	HHDT	78.62

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT, MHDT, and HHDT) relative to the total number of truck trips.

3.6.4 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

On-site equipment includes operational off-road equipment. It is common for industrial warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTR), hustlers, yard hostlers, and yard tractors. The cargo handling equipment is assumed to have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD (53); for example, high-cube warehouse projects typically have 3.6 yard trucks per million sf of building space. For this particular Project, based on the 699,630 sf of high-cube fulfillment center use, on-site modeled operational equipment includes three (3) 200 hp, compressed natural gas or gasoline-powered yard tractors operating at 4 hours a day for 365 days of the year.

3.6.5 SOLID WASTE

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters.

3.6.6 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

3.7 GHG EMISSIONS SUMMARY

As shown on Table 3-3, the Project will result in approximately 1,983.74 $MTCO_2e$/yr from construction, area, energy, waste, and water usage. In addition, the Project has the potential to result in an additional 6,111.58 $MTCO_2e$/yr from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. The Project has the potential to generate a total of approximately 8,095.32 $MTCO_2e$/yr.

TABLE 3-3: TOTAL PROJECT GHG EMISSIONS (ANNUAL)

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	65.60	0.01	0.00	65.78
Area Source	0.04	1.00E-04	0.00	0.04
Energy Source	537.48	0.02	5.33E-03	539.58
Mobile Source (Passenger Cars)	1,789.70	0.05	0.00	1,790.93
Mobile Source (Trucks)	4,139.31	0.05	0.00	4,320.65
On-site Equipment	152.52	0.05	0.00	153.75
Waste	133.50	7.89	0.00	330.73
Water Usage	722.56	5.30	0.13	893.85
Total CO_2e (All Sources)	**8,095.32**			

3.8.1 GHG IMPACT 1

The Project could generate direct or indirect GHG emission that would result in a significant impact on the environment.

The purpose of the CAP Update is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the County. To address the state's requirement to reduce GHG emissions, the County prepared its CAP Update with the goal of reducing GHG emissions within the County by 49% below "existing" 2008 levels by the year 2030. The County's target is consistent with the AB 32 target and ensures that the County will be providing GHG reductions locally that will complement state efforts to reduce GHG emissions. The County's target is also consistent with the SB 32 target that expands on AB 32 to reduce GHG emissions to 40% below the 1990 levels by 2030. Because the County's CAP Update addresses GHG emissions reductions and is consistent with the requirements of AB 32, SB 32, and international efforts to reduce GHG emissions, compliance with the CAP Update fulfills the description of mitigation found in the State CEQA Guidelines.

The CAP Update identifies a two-step approach in evaluating GHG emissions. First, a screening threshold of 3,000 $MTCO_2e$/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 $MTCO_2e$/yr will be required to quantify and disclose the anticipated GHG emissions then either 1) demonstrates GHG emissions at project buildout year levels of efficiency and includes project design features and/or mitigation measures to reduce GHG emissions or 2) garner 100 points through the Screening Tables.

As shown on Table 3-3, the Project will result in approximately 8,095.32 $MTCO_2e$/yr; the proposed project would exceed the County's screening threshold of 3,000 $MTCO_2e$/yr. Thus, the Project would have the potential to result in a cumulatively considerable impact with respect to GHG emissions. As previously stated, since the Project exceeds the 3,000 $MTCO_2e$ threshold, the

Project is required to demonstrate compliance with the County's CAP Screening Tables and achieve a minimum 100 points as identified in MM GHG-2. After implementation of MM GHG-1 and MM GHG-2, Project GHG emissions would have a less than significant impact.

3.8.2 GHG IMPACT 2

The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

As previously stated, pursuant to 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (41). As such, the Project's consistency with AB 32, SB 32, and the County of Riverside's CAP are discussed below.

2008 SCOPING PLAN CONSISTENCY

CARB's *Scoping Plan* identifies strategies to reduce California's GHG emissions in support of AB 32 which requires the State to reduce its GHG emissions to 1990 levels by 2020. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as energy efficiency. Finally, while some measures are not directly applicable, the project would not conflict with their implementation. Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California.[10] Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. **California Light-Duty Vehicle GHG Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).
4. **Renewables Portfolio Standards.** Achieve 33% renewable energy mix statewide.
5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard.
6. **Regional Transportation-Related GHG Targets.** Develop regional GHG emissions reduction targets for passenger vehicles.
7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures.
8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.

[10] California Air Resources Board. California GHG Emissions – Forecast (2002-2020). October 2010

9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs.
10. **Medium- and Heavy-Duty Vehicles.** Adopt MDT and HDT efficiencies. Aerodynamic efficiency measures for HDTs pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010.[11] Future, yet to be determined improvements, includes hybridization of MDT and HDTs.
11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce GHG emissions and provide other pollution reduction co-benefits. Reduce GHG emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive CH_4 emissions and reduce flaring at refineries.
12. **High Speed Rail.** Support implementation of a high-speed rail system.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. **High GWP Gases.** Adopt measures to reduce high warming global potential gases.
15. **Recycling and Waste.** Reduce CH_4 emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration is 5 million $MTCO_2e$/yr.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water.
18. **Agriculture.** In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.

Table 3-4 summarizes the project's consistency with the State Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories through energy efficiency, water conservation, recycling, and landscaping.

TABLE 3-4: 2008 SCOPING PLAN CONSISTENCY SUMMARY

Action Category	Supporting Measures[12]	Remarks
Cap-and-Trade Program	--	**Consistent.** These programs involve capping emissions from electricity generation and similar operations. The Project would not interfere with or obstruct cap-and-trade program measures or initiatives.
Light-Duty Vehicle Standards	T-1	**Consistent.** This is a statewide measure and is not within the purview of the Project. Vehicles accessing the Project would be required to comply with these standards as implemented. Electric Vehicle (EV) charging stations would be installed on site per 2019 Title 24 standards.

[11] California Air Resources Board. Scoping Plan Measures Implementation Timeline. October 2010

[12] Supporting measures can be found at the following link: http://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf

TABLE 3-4: 2008 SCOPING PLAN CONSISTENCY SUMMARY

Action Category	Supporting Measures[12]	Remarks
Energy Efficiency	E-1 E-2 CR-1 CR-2	**Consistent.** The Project would achieve building, water, and solid waste management efficiencies consistent with the incumbent CALGreen requirements.
Renewables Portfolio Standard (RPS)	E-3	**Consistent.** Establishes the minimum statewide renewable energy mix. The Project would not interfere with or obstruct RPS program measures or initiatives.
Low Carbon Fuel Standard	T-2	**Consistent.** Establishes reduced carbon intensity (CI) of transportation fuels. The Project would not interfere with or obstruct transportation fuel CI program measures or initiatives.
Regional Transportation-Related GHG Targets	T-3	**Consistent**. This is a statewide measure and is not within the purview of the Project. The Project would not interfere with or obstruct transportation related GHG target measures or initiatives.
Vehicle Efficiency Measures	T-4	**Consistent.** This is a statewide measure and is not within the purview of the Project. Vehicles accessing the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct vehicle efficiency measures or initiatives.
Goods Movement	T-5 T-6	**Consistent.** This is a statewide measure and is not within the purview of the Project. Goods movement associated with the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct goods movement measures or initiatives.
Million Solar Roofs (MSR) Program	E-4	**Consistent.** The MSR program sets a goal for use of solar systems throughout the state as a whole. The building designs incorporate PV solar panels.
Medium- & Heavy-Duty Vehicles	T-7 T-8	**Consistent.** This is a statewide measure and is not within the purview of the Project. Medium- & heavy-duty vehicles accessing the Project would be required to comply with these measures as implemented. The Project would not interfere with or obstruct medium- & heavy-duty vehicle measures or initiatives.
Industrial Emissions	I-1 I-2 I-3 I-4 I-5	**Consistent.** These measures are applicable to large industrial facilities (> 500,000 $MTCO_2e/yr$) and other intensive uses such as refineries. The Project would not interfere with or obstruct industrial emissions measures or initiatives.
High Speed Rail	T-9	**Consistent.** Supports increased mobility choice via provision of high speed rail. The Project would not interfere with or obstruct high speed rail measures or initiatives.
Green Building Strategy	GB-1	**Consistent.** The Project would implement building, water, and solid waste management efficiencies consistent with incumbent CALGreen requirements.

TABLE 3-4: 2008 SCOPING PLAN CONSISTENCY SUMMARY

Action Category	Supporting Measures[12]	Remarks
High Global Warming Potential (GWP) Gases	H-1	**Consistent.** The Project is not a substantial source of high GWP emissions. The Project would not interfere with or obstruct high GWP emissions measures or initiatives.
	H-2	
	H-3	
	H-4	
	H-5	
	H-6	
	H-7	
Recycling and Waste	RW-1	**Consistent.** The Project would comply with mandated State and County recycling and waste management measures. Currently a minimum of 65% of construction-source waste and waste from warehouse operations is required to be recycled.
	RW-2	
	RW-3	
Sustainable Forests	F-1	**Consistent.** The Project would promote carbon sequestration through provision of per the Project on-site landscaping.
Water	W-1	**Consistent.** The Project would provide low-flow fixtures and water-efficient landscaping per County and State requirements.
	W-2	
	W-3	
	W-4	
	W-5	
	W-6	
Agriculture	A-1	**Consistent.** The Project is not an agricultural use. The Project would not interfere with or obstruct Scoping Plan agricultural measures or initiatives.

SB 32/2017 SCOPING PLAN CONSISTENCY

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 3-5 summarizes the project's consistency with the 2017 Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories.

As shown above, the Project would not conflict with any of the 2017 Scoping Plan elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (38).

TABLE 3-5: 2017 SCOPING PLAN CONSISTENCY SUMMARY[13]

Action	Responsibility	Remarks
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	**Consistent.** The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		**Consistent.** The Project would be designed and constructed to implement the energy efficiency measures for new commercial developments and would include several measures designed to reduce energy consumption. The Project would not interfere with or obstruct policies or strategies to establish annual targets for statewide energy efficiency savings and demand reduction.
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		**Consistent.** The Project would be designed and constructed to implement energy efficiency measures acting to reduce electricity consumption. The Project includes energy efficient lighting and fixtures that meet the current Title 24 Standards. Further, the Project proposes contemporary industrial facilities that would incorporate energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	**Consistent.** This is a CARB Mobile Source Strategy. Vehicles that access the Project that are required to comply with the standards will comply with the Strategy. EV charging stations are required to be installed on the site per Title 24.The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2025 targets.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		**Consistent.** This is a CARB Mobile Source Strategy. Vehicles that access the Project that are required to comply with the standards will

[13] Measures can be found at the following link: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

TABLE 3-5: 2017 SCOPING PLAN CONSISTENCY SUMMARY[13]

Action	Responsibility	Remarks
		comply with the Strategy. EV charging stations are required to be installed on the site per Title 24. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		**Consistent.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		**Consistent.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2 standards.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		**Consistent.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve transit-source emissions.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.		**Consistent**. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		**Consistent.** This is a CARB VMT Reduction Strategy. The Project would not obstruct or interfere with CARB efforts to implement VMT reduction strategies articulated under SB 374 and the Sustainable Communities Strategies.

TABLE 3-5: 2017 SCOPING PLAN CONSISTENCY SUMMARY[13]

Action	Responsibility	Remarks
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	**Consistent.** This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).
By 2019, adjust performance measures used to select and design transportation facilities		
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	**Consistent.** The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	**Consistent.** The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	**Consistent.** This measure would apply to all trucks accessing the Project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight		**Consistent.** The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both

TABLE 3-5: 2017 SCOPING PLAN CONSISTENCY SUMMARY[13]

Action	Responsibility	Remarks
vehicles and equipment powered by renewable energy by 2030.		zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.	CARB	**Consistent.** When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	**Consistent.** The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere agency efforts to reduce SLPS emissions.
50 percent reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLPS and SB 1383.	CARB, CalRecycle, CDFA SWRCB, Local Air Districts	**Consistent.** The Project would implement waste reduction and recycling measures consistent with State and County requirements. The Project would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLPS and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Consistent.** The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	**Consistent.** The Project site is designated for industrial uses. The Project does not propose land conversion. The Project would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.		**Consistent.** The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments.		**Consistent.** Where appropriate, Project designs will incorporate wood or wood products. The Project would not obstruct or interfere agency efforts to encourage use of wood and agricultural

TABLE 3-5: 2017 SCOPING PLAN CONSISTENCY SUMMARY[13]

Action	Responsibility	Remarks
		products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan.		**Consistent.** The Project would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.	CARB	**Consistent.** The Project would not obstruct or interfere agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments	**Consistent.** The Project would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	**Consistent.** The Project would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

COUNTY OF RIVERSIDE CLIMATE ACTION PLAN CONSISTENCY

The County adopted the CAP in December 8, 2015. The CAP was designed under the premise that the County, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner.

In order to evaluate consistency with the CAP, the County provided Screening Tables to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. Projects that garner at least 100 points (equivalent to an approximate 49% reduction in GHG emissions) are determined to be consistent with the reduction quantities anticipated in the County's GHG Technical Report, and consequently would be consistent with the CAP.

In order to enforce the requirements of the CAP Screening Tables, Mitigation Measure GHG-1 requires that the project implement at least 100 points from the County GHG Emissions Screening Tables. Therefore, since the project will incorporate at least 100 points from the screening tables, the project's impact on GHG emissions is considered to have a less than significant individual and cumulative impact on GHG emissions and further quantification is not required per the CAP.

MM GHG-1

Prior to issuance of each building permit, the Project Applicant shall provide documentation to the County of Riverside Building Department demonstrating implementation of CAP measure R2-CE1, which includes on-site renewable energy production. This measure is required for any tentative tract map, plot plan, or conditional use permit that proposes development or one or more new buildings totaling more than 100,000 gross square feet (sf) of commercial, office, industrial, or manufacturing development to offset its energy demand. For industrial developments, measure R2-CE1 requires a 20 percent offset in energy demand.

MM GHG-2

Prior to issuance of each building permit, the Project Applicant shall provide documentation to the County of Riverside Building Department demonstrating that the improvements and/or the building subject to building permit application include measures from the County of Riverside CAP (November 2019) GHG Emissions Screening Tables (Appendix D to the CAP), as needed to achieve a minimum of 100 points (54). Alternatively, specific measures may be substituted for other measures that achieve an equivalent amount of GHG reduction, subject to County of Riverside Building Department review. As currently designed the Project would achieve 106 points, which exceeds the required 100 point minimum:

TABLE 3-6: CAP UPDATE CONSISTENCY – INDUSTRIAL LAND USE

Feature	Description	Points
EE10.A.1 Insulation	Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38)	11
EE10.A.2 Windows	Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less Solar Heat Gain Coefficient [SHGC])	7
EE10-A.3 Cool Roofs	Modest Cool Roof (Cool Roof Rating Council [CRRC] Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	7
EE10.A.4 Air Infiltration	Blower Door Home Energy Rating System (HERS) Verified Envelope Leakage of equivalent	6
EE10.B.1 Heating/Cooling Distribution System	Model Duct Insulation (R-6)	5
EE10.B.2 Space Heating/Cooling Equipment	Improved Efficiency Heating, Ventilation, and Air Conditioning (HVAC) (Energy Efficiency Ratio [EER] 14/78% Annual Fuel Utilization Efficiency [AFUE] or 8 Heating Seasonal Performance Factor [HSPF])	4
EE10B.4 Water Heaters	High Efficiency Water Heater (0.72 Energy Factor)	10

Feature	Description	Points
EE10.B.5 Daylighting	All rooms daylighted	1
EE10.B.6 Artificial Lighting	High Efficiency Lights (50% of in-unit fixtures are high efficiency)	7
W2.E.2 Toilets	Water Efficient Toilets/Urinals (1.5 gallons per minute [gpm])	6
	Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	
W2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	2
T4.B.1 Electric Vehicle (EV) Recharging	Install EV charging stations in garages/parking areas	40[14]
	TOTAL POINTS EARNED BY INDUSTRIAL PROJECT	***106***

[14] The Project is anticipated to include 5 electric vehicle charging stations. Per the Screening Tables, each station is 8 points.

Less than significant impact.

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5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed Barker Logistics Project. The information contained in this GHG 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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Master of Science in Environmental Studies
California State University, Fullerton • May 2010

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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
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APPENDIX 3.1:

CALEEMOD ANNUAL CONSTRUCTION EMISSIONS MODEL OUTPUTS

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Barker Logistics (Construction - Mitigated)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	699.63	1000sqft	16.06	699,630.00	0
Other Non-Asphalt Surfaces	157.88	1000sqft	3.62	157,878.00	0
Parking Lot	633.00	Space	10.50	457,594.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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

Project Characteristics -

Land Use - As per the Site Plan, the Project Gross Project Land Area is 1,315,102 square feet (30.19 acres)

Construction Phase - Architectural Coating activities to occur concurrent with Paving activities.

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

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

Off-road Equipment -

Grading - Based on the Equipment List the total acres graded per day is 1.5 acres for site preparation activities and 3.0 acres for grading activities.

Architectural Coating - Rule 1113

Vehicle Trips - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Increase watering to 4 times per day.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	500.00	270.00
tblConstructionPhase	NumDays	35.00	30.00
tblConstructionPhase	NumDays	35.00	70.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1.17	0.00
tblEnergyUse	NT24E	0.82	0.00

tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.37	0.00
tblEnergyUse	T24NG	2.00	0.00
tblGrading	AcresOfGrading	112.50	180.00
tblGrading	AcresOfGrading	0.00	35.00
tblGrading	MaterialImported	0.00	15,000.00
tblLandUse	LandUseSquareFeet	253,200.00	457,594.00
tblLandUse	LotAcreage	5.70	10.50
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblSolidWaste	SolidWasteGenerationRate	657.65	0.00
tblVehicleEF	HHD	1.43	0.03
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.10	0.00
tblVehicleEF	HHD	3.28	7.55
tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.46	2.9270e-003
tblVehicleEF	HHD	6,485.38	1,409.07
tblVehicleEF	HHD	1,461.92	1,350.00
tblVehicleEF	HHD	4.62	0.03
tblVehicleEF	HHD	26.41	7.34
tblVehicleEF	HHD	2.69	3.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05

tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8980e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
tblVehicleEF	HHD	2.5800e-003	1.0300e-004
tblVehicleEF	HHD	0.85	0.58
tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
tblVehicleEF	HHD	2.5800e-003	1.0300e-004
tblVehicleEF	HHD	0.97	0.66
tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	0.11	0.09
tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	1.35	0.03
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.10	0.00
tblVehicleEF	HHD	2.39	7.39

tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.39	2.7700e-003
tblVehicleEF	HHD	6,867.98	1,402.59
tblVehicleEF	HHD	1,461.92	1,350.00
tblVehicleEF	HHD	4.62	0.03
tblVehicleEF	HHD	27.25	7.10
tblVehicleEF	HHD	2.54	2.88
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.01	9.7680e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8980e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	1.6300e-004	8.0000e-006
tblVehicleEF	HHD	2.9560e-003	1.1800e-004
tblVehicleEF	HHD	0.80	0.60
tblVehicleEF	HHD	9.2000e-005	4.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.8400e-004	5.5600e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	6.9000e-005	0.00

tblVehicleEF	HHD	1.6300e-004	8.0000e-006
tblVehicleEF	HHD	2.9560e-003	1.1800e-004
tblVehicleEF	HHD	0.92	0.69
tblVehicleEF	HHD	9.2000e-005	4.0000e-006
tblVehicleEF	HHD	0.11	0.09
tblVehicleEF	HHD	1.8400e-004	5.5600e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	1.54	0.03
tblVehicleEF	HHD	0.03	3.2330e-003
tblVehicleEF	HHD	0.10	0.00
tblVehicleEF	HHD	4.51	7.76
tblVehicleEF	HHD	0.45	0.32
tblVehicleEF	HHD	1.47	2.9120e-003
tblVehicleEF	HHD	5,957.03	1,414.57
tblVehicleEF	HHD	1,461.92	1,340.32
tblVehicleEF	HHD	4.62	0.03
tblVehicleEF	HHD	25.25	7.65
tblVehicleEF	HHD	2.67	3.02
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8710e-003
tblVehicleEF	HHD	0.01	0.05

tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	6.7000e-005	4.0000e-006
tblVehicleEF	HHD	2.7490e-003	1.2100e-004
tblVehicleEF	HHD	0.91	0.54
tblVehicleEF	HHD	4.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.9200e-004	5.6500e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	6.7000e-005	4.0000e-006
tblVehicleEF	HHD	2.7490e-003	1.2100e-004
tblVehicleEF	HHD	1.05	0.62
tblVehicleEF	HHD	4.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.11	0.08
tblVehicleEF	HHD	1.9200e-004	5.6500e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	LDA	4.0430e-003	2.4680e-003
tblVehicleEF	LDA	5.4670e-003	0.05
tblVehicleEF	LDA	0.58	0.66
tblVehicleEF	LDA	1.16	2.12
tblVehicleEF	LDA	255.91	265.87
tblVehicleEF	LDA	58.81	54.73
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003

tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.01	9.5180e-003
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.07	0.23
tblVehicleEF	LDA	2.5630e-003	2.6300e-003
tblVehicleEF	LDA	6.0800e-004	5.4200e-004
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.08	0.25
tblVehicleEF	LDA	4.5900e-003	2.8100e-003
tblVehicleEF	LDA	4.7470e-003	0.05
tblVehicleEF	LDA	0.71	0.81
tblVehicleEF	LDA	1.02	1.87
tblVehicleEF	LDA	278.73	289.14
tblVehicleEF	LDA	58.81	54.24
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003
tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003

tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.12	0.12
tblVehicleEF	LDA	0.07	0.10
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.06	0.20
tblVehicleEF	LDA	2.7930e-003	2.8600e-003
tblVehicleEF	LDA	6.0500e-004	5.3700e-004
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.12	0.12
tblVehicleEF	LDA	0.07	0.10
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.07	0.22
tblVehicleEF	LDA	3.8980e-003	2.3810e-003
tblVehicleEF	LDA	5.6140e-003	0.05
tblVehicleEF	LDA	0.54	0.62
tblVehicleEF	LDA	1.19	2.17
tblVehicleEF	LDA	249.57	259.47
tblVehicleEF	LDA	58.81	54.82
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003
tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.11	0.11

tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	9.8140e-003	9.1880e-003
tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.08	0.23
tblVehicleEF	LDA	2.4990e-003	2.5670e-003
tblVehicleEF	LDA	6.0800e-004	5.4200e-004
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.08	0.26
tblVehicleEF	LDT1	0.01	8.0140e-003
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	1.46	1.62
tblVehicleEF	LDT1	3.40	2.43
tblVehicleEF	LDT1	315.98	317.00
tblVehicleEF	LDT1	72.28	66.64
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.21	0.23
tblVehicleEF	LDT1	0.35	0.27
tblVehicleEF	LDT1	0.14	0.15
tblVehicleEF	LDT1	0.03	0.04

tblVehicleEF	LDT1	0.20	0.87
tblVehicleEF	LDT1	0.24	0.44
tblVehicleEF	LDT1	3.1780e-003	3.1370e-003
tblVehicleEF	LDT1	7.8300e-004	6.5900e-004
tblVehicleEF	LDT1	0.21	0.23
tblVehicleEF	LDT1	0.35	0.27
tblVehicleEF	LDT1	0.14	0.15
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.20	0.87
tblVehicleEF	LDT1	0.26	0.48
tblVehicleEF	LDT1	0.01	9.0560e-003
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.76	1.96
tblVehicleEF	LDT1	2.99	2.15
tblVehicleEF	LDT1	343.19	341.79
tblVehicleEF	LDT1	72.28	66.01
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.41	0.44
tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.21	0.38

tblVehicleEF	LDT1	3.4550e-003	3.3820e-003
tblVehicleEF	LDT1	7.7500e-004	6.5300e-004
tblVehicleEF	LDT1	0.41	0.44
tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.23	0.42
tblVehicleEF	LDT1	0.01	7.7080e-003
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	1.37	1.51
tblVehicleEF	LDT1	3.46	2.48
tblVehicleEF	LDT1	307.88	309.49
tblVehicleEF	LDT1	72.28	66.77
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.25	0.45
tblVehicleEF	LDT1	3.0960e-003	3.0630e-003
tblVehicleEF	LDT1	7.8400e-004	6.6100e-004

tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.27	0.50
tblVehicleEF	LDT2	5.6080e-003	4.2470e-003
tblVehicleEF	LDT2	7.2840e-003	0.07
tblVehicleEF	LDT2	0.76	0.98
tblVehicleEF	LDT2	1.53	2.73
tblVehicleEF	LDT2	355.02	338.79
tblVehicleEF	LDT2	81.24	71.51
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.10	0.33
tblVehicleEF	LDT2	3.5560e-003	3.3520e-003
tblVehicleEF	LDT2	8.3800e-004	7.0800e-004
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14

tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.11	0.37
tblVehicleEF	LDT2	6.3630e-003	4.8280e-003
tblVehicleEF	LDT2	6.3270e-003	0.06
tblVehicleEF	LDT2	0.93	1.20
tblVehicleEF	LDT2	1.35	2.42
tblVehicleEF	LDT2	386.34	362.86
tblVehicleEF	LDT2	81.24	70.86
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.29
tblVehicleEF	LDT2	3.8710e-003	3.5900e-003
tblVehicleEF	LDT2	8.3500e-004	7.0100e-004
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.03

tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.32
tblVehicleEF	LDT2	5.3900e-003	4.0760e-003
tblVehicleEF	LDT2	7.4940e-003	0.07
tblVehicleEF	LDT2	0.71	0.91
tblVehicleEF	LDT2	1.57	2.80
tblVehicleEF	LDT2	345.65	331.49
tblVehicleEF	LDT2	81.24	71.65
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.10	0.34
tblVehicleEF	LDT2	3.4620e-003	3.2800e-003
tblVehicleEF	LDT2	8.3900e-004	7.0900e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.11	0.38

tblVehicleEF	LHD1	5.4460e-003	4.8820e-003
tblVehicleEF	LHD1	0.01	5.3310e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.21	1.60
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005

tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004
tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.28	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8940e-003
tblVehicleEF	LHD1	0.01	5.4200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.97	0.73
tblVehicleEF	LHD1	2.29	0.92
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.97
tblVehicleEF	LHD1	30.36	10.46
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.08	1.51
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01

tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4700e-004	1.0300e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.27	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8810e-003
tblVehicleEF	LHD1	0.01	5.3180e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54

tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.18	1.59
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.28	0.08

tblVehicleEF	LHD2	3.6660e-003	3.1720e-003
tblVehicleEF	LHD2	4.5290e-003	3.8570e-003
tblVehicleEF	LHD2	8.3110e-003	9.0280e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.15	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.29
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.71	1.77
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004

tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005
tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1790e-003
tblVehicleEF	LHD2	4.5800e-003	3.8860e-003
tblVehicleEF	LHD2	8.0210e-003	8.7250e-003
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tblVehicleEF	LHD2	0.51	0.53
tblVehicleEF	LHD2	1.10	0.53
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.25
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.62	1.67
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1560e-003
tblVehicleEF	LHD2	2.5600e-004	7.2000e-005
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1700e-003
tblVehicleEF	LHD2	4.5170e-003	3.8490e-003
tblVehicleEF	LHD2	8.3600e-003	9.0930e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.16	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.30

tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.70	1.75
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.12	0.05

tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	19.52	19.61
tblVehicleEF	MCY	9.67	8.55
tblVehicleEF	MCY	165.74	208.30
tblVehicleEF	MCY	46.23	60.73
tblVehicleEF	MCY	1.13	1.13
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.15	2.16
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0380e-003	2.0610e-003
tblVehicleEF	MCY	6.8100e-004	6.0100e-004
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.65	2.65
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.14	0.22

tblVehicleEF	MCY	20.23	20.27
tblVehicleEF	MCY	9.11	8.00
tblVehicleEF	MCY	165.74	209.26
tblVehicleEF	MCY	46.23	59.19
tblVehicleEF	MCY	0.98	0.98
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.13	2.13
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	1.86	1.63
tblVehicleEF	MCY	2.0490e-003	2.0710e-003
tblVehicleEF	MCY	6.6500e-004	5.8600e-004
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.62	2.63
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	2.02	1.77
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	19.04	19.14
tblVehicleEF	MCY	9.62	8.49

tblVehicleEF	MCY	165.74	207.52
tblVehicleEF	MCY	46.23	60.64
tblVehicleEF	MCY	1.12	1.12
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.15	2.15
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0310e-003	2.0540e-003
tblVehicleEF	MCY	6.8100e-004	6.0000e-004
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.64	2.65
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.27	1.99
tblVehicleEF	MDV	0.01	5.7580e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.42	1.20
tblVehicleEF	MDV	3.18	3.27
tblVehicleEF	MDV	488.89	421.49
tblVehicleEF	MDV	110.15	88.73

tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.25	0.45
tblVehicleEF	MDV	4.9000e-003	4.1680e-003
tblVehicleEF	MDV	1.1570e-003	8.7800e-004
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.27	0.49
tblVehicleEF	MDV	0.01	6.5120e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.73	1.46
tblVehicleEF	MDV	2.81	2.88
tblVehicleEF	MDV	530.71	447.07
tblVehicleEF	MDV	110.15	87.92
tblVehicleEF	MDV	0.16	0.11
tblVehicleEF	MDV	1.7110e-003	1.5730e-003

tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.21	0.39
tblVehicleEF	MDV	5.3230e-003	4.4210e-003
tblVehicleEF	MDV	1.1510e-003	8.7000e-004
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.23	0.43
tblVehicleEF	MDV	0.01	5.5370e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.33	1.12
tblVehicleEF	MDV	3.24	3.34
tblVehicleEF	MDV	476.42	413.84
tblVehicleEF	MDV	110.15	88.88
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003

tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.25	0.46
tblVehicleEF	MDV	4.7750e-003	4.0920e-003
tblVehicleEF	MDV	1.1590e-003	8.8000e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.28	0.50
tblVehicleEF	MH	0.03	3.3370e-003
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	2.70	0.34
tblVehicleEF	MH	5.98	0.00
tblVehicleEF	MH	1,002.10	941.76
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tblVehicleEF	MH	1.67	4.43
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14

tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	1.56	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8100e-004	0.00
tblVehicleEF	MH	1.56	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
tblVehicleEF	MH	0.03	3.3370e-003
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	2.78	0.34
tblVehicleEF	MH	5.56	0.00
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tblVehicleEF	MH	1.55	4.18
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14

tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	2.87	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MH	9.9470e-003	8.9030e-003
tblVehicleEF	MH	6.7400e-004	0.00
tblVehicleEF	MH	2.87	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.37	0.00
tblVehicleEF	MH	0.03	3.3370e-003
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tblVehicleEF	MH	2.70	0.34
tblVehicleEF	MH	6.02	0.00
tblVehicleEF	MH	1,002.10	941.76
tblVehicleEF	MH	57.67	0.00
tblVehicleEF	MH	1.65	4.38
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14

tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	1.58	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8200e-004	0.00
tblVehicleEF	MH	1.58	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
tblVehicleEF	MHD	0.02	3.1500e-003
tblVehicleEF	MHD	3.7220e-003	5.9790e-003
tblVehicleEF	MHD	0.06	8.4870e-003
tblVehicleEF	MHD	0.35	0.34
tblVehicleEF	MHD	0.28	0.57
tblVehicleEF	MHD	6.06	1.01
tblVehicleEF	MHD	151.96	74.93
tblVehicleEF	MHD	1,066.63	1,001.03
tblVehicleEF	MHD	55.49	8.18
tblVehicleEF	MHD	0.65	0.69
tblVehicleEF	MHD	0.99	2.37
tblVehicleEF	MHD	1.0680e-003	2.4180e-003

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tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	1.0220e-003	2.3130e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.4610e-003	7.1000e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.6100e-004	8.1000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
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tblVehicleEF	MHD	0.02	0.10
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tblVehicleEF	MHD	3.7740e-003	6.0080e-003
tblVehicleEF	MHD	0.05	8.2030e-003
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tblVehicleEF	MHD	0.28	0.57

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tblVehicleEF	MHD	0.93	2.23
tblVehicleEF	MHD	9.0000e-004	2.0410e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	8.6100e-004	1.9530e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
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tblVehicleEF	MHD	0.02	0.11
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tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.5600e-004	8.0000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
tblVehicleEF	MHD	0.04	0.12

tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.39	0.05
tblVehicleEF	MHD	0.02	3.3820e-003
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tblVehicleEF	MHD	0.06	8.5610e-003
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tblVehicleEF	MHD	0.27	0.57
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tblVehicleEF	MHD	139.53	72.84
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tblVehicleEF	MHD	0.98	2.35
tblVehicleEF	MHD	1.2990e-003	2.9380e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	1.2430e-003	2.8110e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.3320e-003	5.6300e-004
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tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
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tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.3440e-003	6.9100e-004

tblVehicleEF	MHD	0.01	9.5290e-003
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tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
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tblVehicleEF	OBUS	8.0950e-003	8.5070e-003
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tblVehicleEF	OBUS	0.54	0.93
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tblVehicleEF	OBUS	75.04	73.28
tblVehicleEF	OBUS	1,098.07	1,407.22
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tblVehicleEF	OBUS	1.2100e-004	1.7750e-003
tblVehicleEF	OBUS	6.0450e-003	0.04
tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	1.1600e-004	1.6990e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003

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tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.39	0.12
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0900e-004	2.0600e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003
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tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
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tblVehicleEF	OBUS	0.05	0.26
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tblVehicleEF	OBUS	1.04	1.59

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tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	9.8000e-005	1.4350e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
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tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	1.7890e-003	2.1320e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.37	0.12
tblVehicleEF	OBUS	7.6100e-004	7.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0200e-004	2.0400e-004
tblVehicleEF	OBUS	4.0690e-003	4.7330e-003
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tblVehicleEF	OBUS	1.7890e-003	2.1320e-003
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tblVehicleEF	OBUS	0.01	8.9200e-003
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tblVehicleEF	OBUS	1.4100e-004	2.0620e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
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tblVehicleEF	OBUS	1.8870e-003	2.3830e-003
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tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	8.5400e-004	1.0620e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.27
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tblVehicleEF	OBUS	6.8300e-004	6.9200e-004
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tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	8.5400e-004	1.0620e-003

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tblVehicleEF	SBUS	0.02	0.05
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tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
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tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
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tblVehicleEF	UBUS	0.11	9.7740e-003
tblVehicleEF	UBUS	4.7860e-003	7.1300e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
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tblVehicleEF	UBUS	0.08	0.02
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tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
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tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	0.02	2.9250e-003
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tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.06	0.07
tblVehicleEF	UBUS	9.9970e-003	4.8690e-003

tblVehicleEF	UBUS	1.7720e-003	1.7500e-004
tblVehicleEF	UBUS	0.02	2.9250e-003
tblVehicleEF	UBUS	0.14	0.01
tblVehicleEF	UBUS	9.6600e-003	1.4550e-003
tblVehicleEF	UBUS	2.09	3.43
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
tblVehicleEF	UBUS	1.51	3.35
tblVehicleEF	UBUS	0.09	0.02
tblVehicleEF	UBUS	8.44	26.05
tblVehicleEF	UBUS	15.44	1.49
tblVehicleEF	UBUS	1,822.40	1,617.71
tblVehicleEF	UBUS	153.45	18.06
tblVehicleEF	UBUS	4.92	0.31
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.03	0.05

tblVehicleEF	UBUS	1.18	0.07
tblVehicleEF	UBUS	9.9960e-003	4.8690e-003
tblVehicleEF	UBUS	1.8130e-003	1.7900e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	2.08	3.43
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	1.29	0.08
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	1.68	0.00
tblWater	IndoorWaterUseRate	161,789,437.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.5117	4.7580	3.8100	0.0123	0.8905	0.1572	1.0477	0.2849	0.1465	0.4315	0.0000	1,125.9551	1,125.9551	0.1325	0.0000	1,129.2684
2021	0.3475	2.7854	2.7179	9.2100e-003	0.4781	0.0806	0.5587	0.1290	0.0755	0.2044	0.0000	842.1695	842.1695	0.0820	0.0000	844.2195
Maximum	**0.5117**	**4.7580**	**3.8100**	**0.0123**	**0.8905**	**0.1572**	**1.0477**	**0.2849**	**0.1465**	**0.4315**	**0.0000**	**1,125.9551**	**1,125.9551**	**0.1325**	**0.0000**	**1,129.2684**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.5117	4.7580	3.8100	0.0123	0.6383	0.1572	0.7955	0.1839	0.1465	0.3304	0.0000	1,125.9547	1,125.9547	0.1325	0.0000	1,129.2680
2021	0.3475	2.7854	2.7179	9.2100e-003	0.4781	0.0806	0.5587	0.1290	0.0755	0.2044	0.0000	842.1693	842.1693	0.0820	0.0000	844.2193
Maximum	**0.5117**	**4.7580**	**3.8100**	**0.0123**	**0.6383**	**0.1572**	**0.7955**	**0.1839**	**0.1465**	**0.3304**	**0.0000**	**1,125.9547**	**1,125.9547**	**0.1325**	**0.0000**	**1,129.2680**

	ROG	NOx	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**	**18.43**	**0.00**	**15.70**	**24.42**	**0.00**	**15.90**	**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	**4-1-2020**	**6-30-2020**	1.9442	1.9442
2	**7-1-2020**	**9-30-2020**	1.6495	1.6495
3	**10-1-2020**	**12-31-2020**	1.6467	1.6467
4	**1-1-2021**	**3-31-2021**	1.4539	1.4539
5	**4-1-2021**	**6-30-2021**	1.4638	1.4638
6	**7-1-2021**	**9-30-2021**	0.2226	0.2226
		Highest	1.9442	1.9442

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

	ROG	NOx	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	4/1/2020	4/14/2020	5	10	
2	Grading	Grading	4/15/2020	6/16/2020	5	45	
3	Building Construction	Building Construction	6/17/2020	6/29/2021	5	270	
4	Paving	Paving	6/30/2021	8/10/2021	5	30	
5	Architectural Coating	Architectural Coating	8/11/2021	8/10/2021	5	70	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 180

Acres of Paving: 14.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,049,445; Non-Residential Outdoor: 349,815; Striped Parking Area: 36,928 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Barker Logistics (Construction - Mitigated) - Riverside-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	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
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	552.00	216.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	110.00	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 - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1089	0.0000	0.1089	0.0517	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.1089**	**0.0110**	**0.1199**	**0.0517**	**0.0101**	**0.0618**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

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					0.0283	0.0000	0.0283	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
Total	**0.0204**	**0.2121**	**0.1076**	**1.9000e-004**	**0.0283**	**0.0110**	**0.0393**	**0.0134**	**0.0101**	**0.0235**	**0.0000**	**16.7153**	**16.7153**	**5.4100e-003**	**0.0000**	**16.8505**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	2.9000e-004	3.0900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8276	0.8276	2.0000e-005	0.0000	0.8282
Total	**4.1000e-004**	**2.9000e-004**	**3.0900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8276**	**0.8276**	**2.0000e-005**	**0.0000**	**0.8282**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2319	0.0000	0.2319	0.0849	0.0000	0.0849	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1001	1.1294	0.7191	1.4000e-003		0.0489	0.0489		0.0450	0.0450	0.0000	122.5897	122.5897	0.0397	0.0000	123.5809
Total	**0.1001**	**1.1294**	**0.7191**	**1.4000e-003**	**0.2319**	**0.0489**	**0.2808**	**0.0849**	**0.0450**	**0.1299**	**0.0000**	**122.5897**	**122.5897**	**0.0397**	**0.0000**	**123.5809**

3.3 Grading - 2020

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	4.9300e-003	0.2273	0.0294	7.1000e-004	0.0162	7.1000e-004	0.0169	4.4400e-003	6.8000e-004	5.1200e-003	0.0000	67.9776	67.9776	4.2600e-003	0.0000	68.0841
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0700e-003	1.4500e-003	0.0155	5.0000e-005	4.9500e-003	3.0000e-005	4.9800e-003	1.3100e-003	3.0000e-005	1.3400e-003	0.0000	4.1382	4.1382	1.0000e-004	0.0000	4.1408
Total	**7.0000e-003**	**0.2288**	**0.0449**	**7.6000e-004**	**0.0211**	**7.4000e-004**	**0.0219**	**5.7500e-003**	**7.1000e-004**	**6.4600e-003**	**0.0000**	**72.1157**	**72.1157**	**4.3600e-003**	**0.0000**	**72.2248**

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					0.0603	0.0000	0.0603	0.0221	0.0000	0.0221	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1001	1.1294	0.7191	1.4000e-003		0.0489	0.0489		0.0450	0.0450	0.0000	122.5895	122.5895	0.0397	0.0000	123.5807
Total	**0.1001**	**1.1294**	**0.7191**	**1.4000e-003**	**0.0603**	**0.0489**	**0.1092**	**0.0221**	**0.0450**	**0.0671**	**0.0000**	**122.5895**	**122.5895**	**0.0397**	**0.0000**	**123.5807**

3.3 Grading - 2020

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	4.9300e-003	0.2273	0.0294	7.1000e-004	0.0162	7.1000e-004	0.0169	4.4400e-003	6.8000e-004	5.1200e-003	0.0000	67.9776	67.9776	4.2600e-003	0.0000	68.0841
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0700e-003	1.4500e-003	0.0155	5.0000e-005	4.9500e-003	3.0000e-005	4.9800e-003	1.3100e-003	3.0000e-005	1.3400e-003	0.0000	4.1382	4.1382	1.0000e-004	0.0000	4.1408
Total	**7.0000e-003**	**0.2288**	**0.0449**	**7.6000e-004**	**0.0211**	**7.4000e-004**	**0.0219**	**5.7500e-003**	**7.1000e-004**	**6.4600e-003**	**0.0000**	**72.1157**	**72.1157**	**4.3600e-003**	**0.0000**	**72.2248**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1601	1.4661	1.2757	2.0400e-003		0.0848	0.0848		0.0797	0.0797	0.0000	176.2068	176.2068	0.0439	0.0000	177.3048
Total	**0.1601**	**1.4661**	**1.2757**	**2.0400e-003**		**0.0848**	**0.0848**		**0.0797**	**0.0797**	**0.0000**	**176.2068**	**176.2068**	**0.0439**	**0.0000**	**177.3048**

3.4 Building Construction - 2020

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	0.0436	1.5951	0.3121	3.9400e-003	0.0969	9.0200e-003	0.1059	0.0280	8.6300e-003	0.0366	0.0000	377.0933	377.0933	0.0301	0.0000	377.8469
Worker	0.1801	0.1262	1.3476	3.9900e-003	0.4308	2.6500e-003	0.4334	0.1144	2.4400e-003	0.1168	0.0000	360.4067	360.4067	9.0200e-003	0.0000	360.6323
Total	**0.2237**	**1.7213**	**1.6597**	**7.9300e-003**	**0.5276**	**0.0117**	**0.5393**	**0.1423**	**0.0111**	**0.1534**	**0.0000**	**737.5000**	**737.5000**	**0.0392**	**0.0000**	**738.4792**

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	0.1601	1.4661	1.2757	2.0400e-003		0.0848	0.0848		0.0797	0.0797	0.0000	176.2065	176.2065	0.0439	0.0000	177.3046
Total	**0.1601**	**1.4661**	**1.2757**	**2.0400e-003**		**0.0848**	**0.0848**		**0.0797**	**0.0797**	**0.0000**	**176.2065**	**176.2065**	**0.0439**	**0.0000**	**177.3046**

3.4 Building Construction - 2020

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	0.0436	1.5951	0.3121	3.9400e-003	0.0969	9.0200e-003	0.1059	0.0280	8.6300e-003	0.0366	0.0000	377.0933	377.0933	0.0301	0.0000	377.8469
Worker	0.1801	0.1262	1.3476	3.9900e-003	0.4308	2.6500e-003	0.4334	0.1144	2.4400e-003	0.1168	0.0000	360.4067	360.4067	9.0200e-003	0.0000	360.6323
Total	**0.2237**	**1.7213**	**1.6597**	**7.9300e-003**	**0.5276**	**0.0117**	**0.5393**	**0.1423**	**0.0111**	**0.1534**	**0.0000**	**737.5000**	**737.5000**	**0.0392**	**0.0000**	**738.4792**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1295	1.2000	1.1309	1.8400e-003		0.0656	0.0656		0.0616	0.0616	0.0000	158.8542	158.8542	0.0392	0.0000	159.8341
Total	**0.1295**	**1.2000**	**1.1309**	**1.8400e-003**		**0.0656**	**0.0656**		**0.0616**	**0.0616**	**0.0000**	**158.8542**	**158.8542**	**0.0392**	**0.0000**	**159.8341**

3.4 Building Construction - 2021

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	0.0330	1.2890	0.2480	3.5300e-003	0.0873	2.4600e-003	0.0898	0.0252	2.3600e-003	0.0276	0.0000	337.2685	337.2685	0.0257	0.0000	337.9118
Worker	0.1515	0.1021	1.1121	3.4700e-003	0.3883	2.3300e-003	0.3906	0.1031	2.1400e-003	0.1053	0.0000	314.0117	314.0117	7.3100e-003	0.0000	314.1945
Total	**0.1845**	**1.3911**	**1.3601**	**7.0000e-003**	**0.4756**	**4.7900e-003**	**0.4804**	**0.1283**	**4.5000e-003**	**0.1328**	**0.0000**	**651.2802**	**651.2802**	**0.0330**	**0.0000**	**652.1063**

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	0.1295	1.2000	1.1309	1.8400e-003		0.0656	0.0656		0.0616	0.0616	0.0000	158.8540	158.8540	0.0392	0.0000	159.8339
Total	**0.1295**	**1.2000**	**1.1309**	**1.8400e-003**		**0.0656**	**0.0656**		**0.0616**	**0.0616**	**0.0000**	**158.8540**	**158.8540**	**0.0392**	**0.0000**	**159.8339**

3.4 Building Construction - 2021

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	0.0330	1.2890	0.2480	3.5300e-003	0.0873	2.4600e-003	0.0898	0.0252	2.3600e-003	0.0276	0.0000	337.2685	337.2685	0.0257	0.0000	337.9118
Worker	0.1515	0.1021	1.1121	3.4700e-003	0.3883	2.3300e-003	0.3906	0.1031	2.1400e-003	0.1053	0.0000	314.0117	314.0117	7.3100e-003	0.0000	314.1945
Total	**0.1845**	**1.3911**	**1.3601**	**7.0000e-003**	**0.4756**	**4.7900e-003**	**0.4804**	**0.1283**	**4.5000e-003**	**0.1328**	**0.0000**	**651.2802**	**651.2802**	**0.0330**	**0.0000**	**652.1063**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1938	0.2198	3.4000e-004		0.0102	0.0102		9.3500e-003	9.3500e-003	0.0000	30.0352	30.0352	9.7100e-003	0.0000	30.2781
Paving	0.0138					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0326**	**0.1938**	**0.2198**	**3.4000e-004**		**0.0102**	**0.0102**		**9.3500e-003**	**9.3500e-003**	**0.0000**	**30.0352**	**30.0352**	**9.7100e-003**	**0.0000**	**30.2781**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.5000e-004	7.0800e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9999	1.9999	5.0000e-005	0.0000	2.0011
Total	**9.6000e-004**	**6.5000e-004**	**7.0800e-003**	**2.0000e-005**	**2.4700e-003**	**1.0000e-005**	**2.4900e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**1.9999**	**1.9999**	**5.0000e-005**	**0.0000**	**2.0011**

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	0.0188	0.1938	0.2198	3.4000e-004		0.0102	0.0102		9.3500e-003	9.3500e-003	0.0000	30.0352	30.0352	9.7100e-003	0.0000	30.2780
Paving	0.0138					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0326**	**0.1938**	**0.2198**	**3.4000e-004**		**0.0102**	**0.0102**		**9.3500e-003**	**9.3500e-003**	**0.0000**	**30.0352**	**30.0352**	**9.7100e-003**	**0.0000**	**30.2780**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.6000e-004	6.5000e-004	7.0800e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9999	1.9999	5.0000e-005	0.0000	2.0011
Total	**9.6000e-004**	**6.5000e-004**	**7.0800e-003**	**2.0000e-005**	**2.4700e-003**	**1.0000e-005**	**2.4900e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**1.9999**	**1.9999**	**5.0000e-005**	**0.0000**	**2.0011**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00	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
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Unrefrigerated Warehouse-No Rail	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
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
Unrefrigerated Warehouse-No Rail	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
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
Unrefrigerated Warehouse-No Rail	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Unmitigated	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.2:

CALEEMOD ANNUAL OPERATIONAL (PASSENGER CARS) EMISSIONS MODEL OUTPUTS

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Barker Logistics (Operations - Passenger Cars)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	699.63	1000sqft	16.06	699,630.00	0
Other Non-Asphalt Surfaces	157.88	1000sqft	3.62	157,878.00	0
Parking Lot	633.00	Space	10.50	457,594.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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

Project Characteristics -

Land Use - As per the Site Plan, the Project Gross Project Land Area is 1,315,102 square feet (30.19 acres)

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the TIA by Urban Crossroads, Inc. (2019) and Trip Length based on information provided in the VMT Assessment by Urban Crossroads, Inc. (2019)

Energy Mitigation -

Operational Off-Road Equipment - Based on the latest available information from SCAQMD.

Fleet Mix - Passenger Car Fleet Mix estimated based on the ratio of the vehicle classes in CalEEMod default fleet mix.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	0.07	0.00
tblFleetMix	LDA	0.54	0.61
tblFleetMix	LDT1	0.04	0.04
tblFleetMix	LDT2	0.19	0.21
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.1410e-003	0.00
tblFleetMix	MCY	4.5820e-003	0.00
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	1.0380e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	9.4500e-004	0.00

tblFleetMix	UBUS	1.1830e-003	0.00
tblLandUse	LandUseSquareFeet	253,200.00	457,594.00
tblLandUse	LotAcreage	5.70	10.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
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tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.10	0.00
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tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.01	0.01

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8980e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
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tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
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tblVehicleEF	HHD	4.8000e-005	2.0000e-006
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tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
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tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.10	0.00
tblVehicleEF	HHD	2.39	7.39
tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.39	2.7700e-003

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tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	6.7000e-005	4.0000e-006
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tblVehicleEF	LDT1	0.24	0.44

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tblVehicleEF	LDT1	0.35	0.27
tblVehicleEF	LDT1	0.14	0.15
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.20	0.87
tblVehicleEF	LDT1	0.26	0.48
tblVehicleEF	LDT1	0.01	9.0560e-003
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tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.21	0.38
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tblVehicleEF	LDT1	7.7500e-004	6.5300e-004

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tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.23	0.42
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tblVehicleEF	LDT1	0.02	0.09
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tblVehicleEF	LDT1	307.88	309.49
tblVehicleEF	LDT1	72.28	66.77
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.25	0.45
tblVehicleEF	LDT1	3.0960e-003	3.0630e-003
tblVehicleEF	LDT1	7.8400e-004	6.6100e-004
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30

tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.27	0.50
tblVehicleEF	LDT2	5.6080e-003	4.2470e-003
tblVehicleEF	LDT2	7.2840e-003	0.07
tblVehicleEF	LDT2	0.76	0.98
tblVehicleEF	LDT2	1.53	2.73
tblVehicleEF	LDT2	355.02	338.79
tblVehicleEF	LDT2	81.24	71.51
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.10	0.33
tblVehicleEF	LDT2	3.5560e-003	3.3520e-003
tblVehicleEF	LDT2	8.3800e-004	7.0800e-004
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.02	0.03

tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.11	0.37
tblVehicleEF	LDT2	6.3630e-003	4.8280e-003
tblVehicleEF	LDT2	6.3270e-003	0.06
tblVehicleEF	LDT2	0.93	1.20
tblVehicleEF	LDT2	1.35	2.42
tblVehicleEF	LDT2	386.34	362.86
tblVehicleEF	LDT2	81.24	70.86
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.29
tblVehicleEF	LDT2	3.8710e-003	3.5900e-003
tblVehicleEF	LDT2	8.3500e-004	7.0100e-004
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.32

tblVehicleEF	LDT2	5.3900e-003	4.0760e-003
tblVehicleEF	LDT2	7.4940e-003	0.07
tblVehicleEF	LDT2	0.71	0.91
tblVehicleEF	LDT2	1.57	2.80
tblVehicleEF	LDT2	345.65	331.49
tblVehicleEF	LDT2	81.24	71.65
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.10	0.34
tblVehicleEF	LDT2	3.4620e-003	3.2800e-003
tblVehicleEF	LDT2	8.3900e-004	7.0900e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.11	0.38
tblVehicleEF	LHD1	5.4460e-003	4.8820e-003
tblVehicleEF	LHD1	0.01	5.3310e-003

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.21	1.60
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004

tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.28	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8940e-003
tblVehicleEF	LHD1	0.01	5.4200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.97	0.73
tblVehicleEF	LHD1	2.29	0.92
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.97
tblVehicleEF	LHD1	30.36	10.46
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.08	1.51
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003

tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4700e-004	1.0300e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.27	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8810e-003
tblVehicleEF	LHD1	0.01	5.3180e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.18	1.59

tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.28	0.08
tblVehicleEF	LHD2	3.6660e-003	3.1720e-003
tblVehicleEF	LHD2	4.5290e-003	3.8570e-003

tblVehicleEF	LHD2	8.3110e-003	9.0280e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.15	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.29
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.71	1.77
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005

tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1790e-003
tblVehicleEF	LHD2	4.5800e-003	3.8860e-003
tblVehicleEF	LHD2	8.0210e-003	8.7250e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.51	0.53
tblVehicleEF	LHD2	1.10	0.53
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.25
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.62	1.67
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003

tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1560e-003
tblVehicleEF	LHD2	2.5600e-004	7.2000e-005
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1700e-003
tblVehicleEF	LHD2	4.5170e-003	3.8490e-003
tblVehicleEF	LHD2	8.3600e-003	9.0930e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.16	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.30
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.70	1.75

tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24

tblVehicleEF	MCY	19.52	19.61
tblVehicleEF	MCY	9.67	8.55
tblVehicleEF	MCY	165.74	208.30
tblVehicleEF	MCY	46.23	60.73
tblVehicleEF	MCY	1.13	1.13
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.15	2.16
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0380e-003	2.0610e-003
tblVehicleEF	MCY	6.8100e-004	6.0100e-004
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.65	2.65
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.14	0.22
tblVehicleEF	MCY	20.23	20.27
tblVehicleEF	MCY	9.11	8.00

tblVehicleEF	MCY	165.74	209.26
tblVehicleEF	MCY	46.23	59.19
tblVehicleEF	MCY	0.98	0.98
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.13	2.13
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	1.86	1.63
tblVehicleEF	MCY	2.0490e-003	2.0710e-003
tblVehicleEF	MCY	6.6500e-004	5.8600e-004
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.62	2.63
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	2.02	1.77
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	19.04	19.14
tblVehicleEF	MCY	9.62	8.49
tblVehicleEF	MCY	165.74	207.52
tblVehicleEF	MCY	46.23	60.64

tblVehicleEF	MCY	1.12	1.12
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.15	2.15
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0310e-003	2.0540e-003
tblVehicleEF	MCY	6.8100e-004	6.0000e-004
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.64	2.65
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.27	1.99
tblVehicleEF	MDV	0.01	5.7580e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.42	1.20
tblVehicleEF	MDV	3.18	3.27
tblVehicleEF	MDV	488.89	421.49
tblVehicleEF	MDV	110.15	88.73
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003

tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.25	0.45
tblVehicleEF	MDV	4.9000e-003	4.1680e-003
tblVehicleEF	MDV	1.1570e-003	8.7800e-004
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.27	0.49
tblVehicleEF	MDV	0.01	6.5120e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.73	1.46
tblVehicleEF	MDV	2.81	2.88
tblVehicleEF	MDV	530.71	447.07
tblVehicleEF	MDV	110.15	87.92
tblVehicleEF	MDV	0.16	0.11
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003

tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.21	0.39
tblVehicleEF	MDV	5.3230e-003	4.4210e-003
tblVehicleEF	MDV	1.1510e-003	8.7000e-004
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.23	0.43
tblVehicleEF	MDV	0.01	5.5370e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.33	1.12
tblVehicleEF	MDV	3.24	3.34
tblVehicleEF	MDV	476.42	413.84
tblVehicleEF	MDV	110.15	88.88
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.09	0.10

tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.25	0.46
tblVehicleEF	MDV	4.7750e-003	4.0920e-003
tblVehicleEF	MDV	1.1590e-003	8.8000e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.28	0.50
tblVehicleEF	MH	0.03	3.3370e-003
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	2.70	0.34
tblVehicleEF	MH	5.98	0.00
tblVehicleEF	MH	1,002.10	941.76
tblVehicleEF	MH	57.67	0.00
tblVehicleEF	MH	1.67	4.43
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tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	1.56	0.00

tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8100e-004	0.00
tblVehicleEF	MH	1.56	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
tblVehicleEF	MH	0.03	3.3370e-003
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	2.78	0.34
tblVehicleEF	MH	5.56	0.00
tblVehicleEF	MH	1,002.10	941.76
tblVehicleEF	MH	57.67	0.00
tblVehicleEF	MH	1.55	4.18
tblVehicleEF	MH	0.01	0.02
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tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	2.87	0.00

tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MH	9.9470e-003	8.9030e-003
tblVehicleEF	MH	6.7400e-004	0.00
tblVehicleEF	MH	2.87	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.37	0.00
tblVehicleEF	MH	0.03	3.3370e-003
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	2.70	0.34
tblVehicleEF	MH	6.02	0.00
tblVehicleEF	MH	1,002.10	941.76
tblVehicleEF	MH	57.67	0.00
tblVehicleEF	MH	1.65	4.38
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	9.9800e-004	0.00
tblVehicleEF	MH	1.58	0.00

tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8200e-004	0.00
tblVehicleEF	MH	1.58	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
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tblVehicleEF	MHD	3.7220e-003	5.9790e-003
tblVehicleEF	MHD	0.06	8.4870e-003
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tblVehicleEF	MHD	0.28	0.57
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tblVehicleEF	MHD	151.96	74.93
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tblVehicleEF	MHD	0.65	0.69
tblVehicleEF	MHD	0.99	2.37
tblVehicleEF	MHD	1.0680e-003	2.4180e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005

tblVehicleEF	MHD	1.0220e-003	2.3130e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.4610e-003	7.1000e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.6100e-004	8.1000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.40	0.05
tblVehicleEF	MHD	0.02	2.9880e-003
tblVehicleEF	MHD	3.7740e-003	6.0080e-003
tblVehicleEF	MHD	0.05	8.2030e-003
tblVehicleEF	MHD	0.26	0.28
tblVehicleEF	MHD	0.28	0.57
tblVehicleEF	MHD	5.78	0.96
tblVehicleEF	MHD	160.96	76.44

tblVehicleEF	MHD	1,066.63	1,001.04
tblVehicleEF	MHD	55.49	8.10
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tblVehicleEF	MHD	0.93	2.23
tblVehicleEF	MHD	9.0000e-004	2.0410e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	8.6100e-004	1.9530e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.36	0.04
tblVehicleEF	MHD	1.5460e-003	7.2500e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.5600e-004	8.0000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.39	0.05

tblVehicleEF	MHD	0.02	3.3820e-003
tblVehicleEF	MHD	3.6890e-003	5.9600e-003
tblVehicleEF	MHD	0.06	8.5610e-003
tblVehicleEF	MHD	0.49	0.43
tblVehicleEF	MHD	0.27	0.57
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tblVehicleEF	MHD	1.2990e-003	2.9380e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	1.2430e-003	2.8110e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.3320e-003	5.6300e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.3440e-003	6.9100e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.6300e-004	8.1000e-005

tblVehicleEF	MHD	1.3320e-003	5.6300e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.11
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tblVehicleEF	OBUS	0.01	8.9240e-003
tblVehicleEF	OBUS	8.0950e-003	8.5070e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.27	0.50
tblVehicleEF	OBUS	0.54	0.93
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tblVehicleEF	OBUS	1,098.07	1,407.22
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tblVehicleEF	OBUS	0.35	0.44
tblVehicleEF	OBUS	1.12	1.70
tblVehicleEF	OBUS	1.2100e-004	1.7750e-003
tblVehicleEF	OBUS	6.0450e-003	0.04
tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	1.1600e-004	1.6990e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.05

tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.39	0.12
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0900e-004	2.0600e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
tblVehicleEF	OBUS	0.05	0.11
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.42	0.14
tblVehicleEF	OBUS	0.01	8.9470e-003
tblVehicleEF	OBUS	8.2540e-003	8.6370e-003
tblVehicleEF	OBUS	0.03	0.02
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tblVehicleEF	OBUS	1.0200e-004	1.5000e-003
tblVehicleEF	OBUS	6.0450e-003	0.04

tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	9.8000e-005	1.4350e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	4.0690e-003	4.7330e-003
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tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	1.7890e-003	2.1320e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.37	0.12
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tblVehicleEF	OBUS	1.4100e-004	2.0620e-003
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tblVehicleEF	OBUS	8.5400e-004	1.0620e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.27
tblVehicleEF	OBUS	0.39	0.13
tblVehicleEF	OBUS	6.8300e-004	6.9200e-004
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.8870e-003	2.3830e-003
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tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	8.5400e-004	1.0620e-003
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tblVehicleEF	OBUS	0.05	0.27

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tblVehicleEF	SBUS	4.65	4.82
tblVehicleEF	SBUS	0.01	4.0660e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
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tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
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tblVehicleEF	SBUS	0.03	8.6250e-003
tblVehicleEF	SBUS	0.94	0.36
tblVehicleEF	SBUS	2.1770e-003	6.2500e-004
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.37	0.04

tblVehicleEF	SBUS	0.01	3.5040e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.5500e-004	6.0000e-005
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tblVehicleEF	SBUS	0.03	8.6250e-003
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tblVehicleEF	SBUS	2.1770e-003	6.2500e-004
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.84	0.08
tblVehicleEF	SBUS	0.01	6.6860e-003
tblVehicleEF	SBUS	0.05	5.8380e-003
tblVehicleEF	SBUS	7.71	2.99
tblVehicleEF	SBUS	0.65	0.54
tblVehicleEF	SBUS	4.83	0.68
tblVehicleEF	SBUS	1,198.60	377.09
tblVehicleEF	SBUS	1,103.40	1,115.28
tblVehicleEF	SBUS	53.92	5.63
tblVehicleEF	SBUS	10.32	3.66
tblVehicleEF	SBUS	4.37	4.53
tblVehicleEF	SBUS	9.1190e-003	3.4340e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
tblVehicleEF	SBUS	8.7240e-003	3.2850e-003
tblVehicleEF	SBUS	2.6950e-003	2.6510e-003

tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
tblVehicleEF	SBUS	8.4640e-003	2.3620e-003
tblVehicleEF	SBUS	0.03	9.1440e-003
tblVehicleEF	SBUS	0.93	0.36
tblVehicleEF	SBUS	4.0830e-003	1.1650e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.01	3.6000e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.2400e-004	5.6000e-005
tblVehicleEF	SBUS	8.4640e-003	2.3620e-003
tblVehicleEF	SBUS	0.03	9.1440e-003
tblVehicleEF	SBUS	1.35	0.52
tblVehicleEF	SBUS	4.0830e-003	1.1650e-003
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.34	0.04
tblVehicleEF	SBUS	0.84	0.08
tblVehicleEF	SBUS	0.01	6.6040e-003
tblVehicleEF	SBUS	0.07	7.2110e-003
tblVehicleEF	SBUS	8.00	3.09
tblVehicleEF	SBUS	0.63	0.53
tblVehicleEF	SBUS	7.02	0.98
tblVehicleEF	SBUS	1,074.07	352.76
tblVehicleEF	SBUS	1,103.40	1,115.26

tblVehicleEF	SBUS	53.92	6.14
tblVehicleEF	SBUS	9.56	3.44
tblVehicleEF	SBUS	4.60	4.78
tblVehicleEF	SBUS	0.01	4.9380e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
tblVehicleEF	SBUS	0.01	4.7240e-003
tblVehicleEF	SBUS	2.6950e-003	2.6510e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
tblVehicleEF	SBUS	4.1680e-003	1.1480e-003
tblVehicleEF	SBUS	0.03	8.8290e-003
tblVehicleEF	SBUS	0.94	0.36
tblVehicleEF	SBUS	2.1000e-003	6.0300e-004
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.38	0.04
tblVehicleEF	SBUS	0.01	3.3710e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6100e-004	6.1000e-005
tblVehicleEF	SBUS	4.1680e-003	1.1480e-003
tblVehicleEF	SBUS	0.03	8.8290e-003
tblVehicleEF	SBUS	1.35	0.52
tblVehicleEF	SBUS	2.1000e-003	6.0300e-004
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.02	0.06

tblVehicleEF	SBUS	0.41	0.05
tblVehicleEF	UBUS	1.51	3.35
tblVehicleEF	UBUS	0.09	0.02
tblVehicleEF	UBUS	8.45	26.05
tblVehicleEF	UBUS	15.26	1.50
tblVehicleEF	UBUS	1,822.40	1,617.71
tblVehicleEF	UBUS	153.45	18.08
tblVehicleEF	UBUS	4.95	0.32
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	9.7430e-003	1.6370e-003
tblVehicleEF	UBUS	0.11	9.7740e-003
tblVehicleEF	UBUS	4.7860e-003	7.1300e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
tblVehicleEF	UBUS	9.9960e-003	4.8690e-003
tblVehicleEF	UBUS	1.8100e-003	1.7900e-004
tblVehicleEF	UBUS	9.7430e-003	1.6370e-003
tblVehicleEF	UBUS	0.11	9.7740e-003
tblVehicleEF	UBUS	4.7860e-003	7.1300e-004

tblVehicleEF	UBUS	2.08	3.43
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.28	0.08
tblVehicleEF	UBUS	1.52	3.35
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	8.53	26.06
tblVehicleEF	UBUS	13.06	1.28
tblVehicleEF	UBUS	1,822.40	1,617.72
tblVehicleEF	UBUS	153.45	17.70
tblVehicleEF	UBUS	4.62	0.31
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	0.02	2.9250e-003
tblVehicleEF	UBUS	0.14	0.01
tblVehicleEF	UBUS	9.6600e-003	1.4550e-003
tblVehicleEF	UBUS	0.53	0.05
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.06	0.07
tblVehicleEF	UBUS	9.9970e-003	4.8690e-003
tblVehicleEF	UBUS	1.7720e-003	1.7500e-004
tblVehicleEF	UBUS	0.02	2.9250e-003

tblVehicleEF	UBUS	0.14	0.01
tblVehicleEF	UBUS	9.6600e-003	1.4550e-003
tblVehicleEF	UBUS	2.09	3.43
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
tblVehicleEF	UBUS	1.51	3.35
tblVehicleEF	UBUS	0.09	0.02
tblVehicleEF	UBUS	8.44	26.05
tblVehicleEF	UBUS	15.44	1.49
tblVehicleEF	UBUS	1,822.40	1,617.71
tblVehicleEF	UBUS	153.45	18.06
tblVehicleEF	UBUS	4.92	0.31
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	1.18	0.07
tblVehicleEF	UBUS	9.9960e-003	4.8690e-003

tblVehicleEF	UBUS	1.8130e-003	1.7900e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	2.08	3.43
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	1.29	0.08
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	12.50
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	1.82
tblVehicleTrips	SU_TR	1.68	1.82
tblVehicleTrips	WD_TR	1.68	1.82

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**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**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	652.9040	652.9040	0.0253	6.3200e-003	655.4190
Mobile	0.5570	0.4794	6.5986	0.0195	2.1640	0.0107	2.1747	0.5744	9.8100e-003	0.5842	0.0000	1,789.7015	1,789.7015	0.0493	0.0000	1,790.9332
Offroad	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Waste						0.0000	0.0000		0.0000	0.0000	133.4970	0.0000	133.4970	7.8895	0.0000	330.7332
Water						0.0000	0.0000		0.0000	0.0000	51.3283	671.2271	722.5554	5.2996	0.1302	893.8499
Total	**3.5421**	**1.3957**	**7.0999**	**0.0217**	**2.1640**	**0.0446**	**2.2086**	**0.5744**	**0.0415**	**0.6158**	**184.8253**	**3,266.3913**	**3,451.2166**	**13.3131**	**0.1365**	**3,824.7297**

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	537.4812	537.4812	0.0205	5.3300e-003	539.5833
Mobile	0.5570	0.4794	6.5986	0.0195	2.1640	0.0107	2.1747	0.5744	9.8100e-003	0.5842	0.0000	1,789.7015	1,789.7015	0.0493	0.0000	1,790.9332
Offroad	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Waste						0.0000	0.0000		0.0000	0.0000	133.4970	0.0000	133.4970	7.8895	0.0000	330.7332
Water						0.0000	0.0000		0.0000	0.0000	51.3283	671.2271	722.5554	5.2996	0.1302	893.8499
Total	**3.5421**	**1.3957**	**7.0999**	**0.0217**	**2.1640**	**0.0446**	**2.2086**	**0.5744**	**0.0415**	**0.6158**	**184.8253**	**3,150.9684**	**3,335.7938**	**13.3083**	**0.1355**	**3,708.8939**

	ROG	NOx	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**	**3.53**	**3.34**	**0.04**	**0.73**	**3.03**

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	4/1/2020	4/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 14.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.5570	0.4794	6.5986	0.0195	2.1640	0.0107	2.1747	0.5744	9.8100e-003	0.5842	0.0000	1,789.7015	1,789.7015	0.0493	0.0000	1,790.9332
Unmitigated	0.5570	0.4794	6.5986	0.0195	2.1640	0.0107	2.1747	0.5744	9.8100e-003	0.5842	0.0000	1,789.7015	1,789.7015	0.0493	0.0000	1,790.9332

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,273.33	1,273.33	1273.33	5,793,636	5,793,636
Total	1,273.33	1,273.33	1,273.33	5,793,636	5,793,636

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
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
Unrefrigerated Warehouse-No	12.50	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Unrefrigerated Warehouse-No Rail	0.613670	0.042538	0.209648	0.134144	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	461.6913	461.6913	0.0191	3.9400e-003	463.3430
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	577.1141	577.1141	0.0238	4.9300e-003	579.1788
NaturalGas Mitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
NaturalGas Unmitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403

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					
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
Unrefrigerated Warehouse-No Rail	1.42025e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7899**	**75.7899**	**1.4500e-003**	**1.3900e-003**	**76.2403**

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					
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
Unrefrigerated Warehouse-No Rail	1.42025e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7899**	**75.7899**	**1.4500e-003**	**1.3900e-003**	**76.2403**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	160158	51.0297	2.1100e-003	4.4000e-004	51.2123
Unrefrigerated Warehouse-No Rail	1.65113e +006	526.0844	0.0217	4.4900e-003	527.9665
Total		**577.1141**	**0.0238**	**4.9300e-003**	**579.1788**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	128126	40.8238	1.6900e-003	3.5000e-004	40.9698
Unrefrigerated Warehouse-No Rail	1.3209e +006	420.8675	0.0174	3.5900e-003	422.3732
Total		**461.6913**	**0.0191**	**3.9400e-003**	**463.3430**

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Unmitigated	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	722.5554	5.2996	0.1302	893.8499
Unmitigated	722.5554	5.2996	0.1302	893.8499

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	161.789 / 0	722.5554	5.2996	0.1302	893.8499
Total		**722.5554**	**5.2996**	**0.1302**	**893.8499**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	161.789 / 0	722.5554	5.2996	0.1302	893.8499
Total		**722.5554**	**5.2996**	**0.1302**	**893.8499**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	133.4970	7.8895	0.0000	330.7332
Unmitigated	133.4970	7.8895	0.0000	330.7332

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	657.65	133.4970	7.8895	0.0000	330.7332
Total		**133.4970**	**7.8895**	**0.0000**	**330.7332**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	657.65	133.4970	7.8895	0.0000	330.7332
Total		**133.4970**	**7.8895**	**0.0000**	**330.7332**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	365	200	0.37	CNG

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Total	**0.0748**	**0.8465**	**0.4238**	**1.7400e-003**		**0.0286**	**0.0286**		**0.0263**	**0.0263**	**0.0000**	**152.5217**	**152.5217**	**0.0493**	**0.0000**	**153.7549**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.3:

CALEEMOD ANNUAL OPERATIONAL (TRUCKS) EMISSIONS MODEL OUTPUTS

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Barker Logistics (Operations - Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	699.63	1000sqft	16.06	699,630.00	0
Other Non-Asphalt Surfaces	157.88	1000sqft	3.62	157,878.00	0
Parking Lot	633.00	Space	10.50	457,594.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2021
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

Project Characteristics -

Land Use - As per the Site Plan, the Project Gross Project Land Area is 1,315,102 square feet (30.19 acres)

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the TIA by Urban Crossroads, Inc. (2019) and Trip Length based on information provided in the VMT Assessment by Urban Crossroads, Inc. (2019)

Energy Mitigation -

Operational Off-Road Equipment - Based on the latest available information from SCAQMD.

Fleet Mix - Truck Fleet Mix estimated by rationing the Trip Rates for each truck type based on information provided in the TIA.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	0.07	0.79
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.11
tblFleetMix	LHD2	5.1410e-003	0.00
tblFleetMix	MCY	4.5820e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	1.0380e-003	0.00
tblFleetMix	MHD	0.02	0.11
tblFleetMix	OBUS	1.3830e-003	0.00
tblFleetMix	SBUS	9.4500e-004	0.00

tblFleetMix	UBUS	1.1830e-003	0.00
tblLandUse	LandUseSquareFeet	253,200.00	457,594.00
tblLandUse	LotAcreage	5.70	10.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	3.00
tblVehicleEF	HHD	1.43	0.03
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.10	0.00
tblVehicleEF	HHD	3.28	7.55
tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.46	2.9270e-003
tblVehicleEF	HHD	6,485.38	1,409.07
tblVehicleEF	HHD	1,461.92	1,350.00
tblVehicleEF	HHD	4.62	0.03
tblVehicleEF	HHD	26.41	7.34
tblVehicleEF	HHD	2.69	3.05
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.01	0.01

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8980e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
tblVehicleEF	HHD	2.5800e-003	1.0300e-004
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tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	8.4000e-005	4.0000e-006
tblVehicleEF	HHD	2.5800e-003	1.0300e-004
tblVehicleEF	HHD	0.97	0.66
tblVehicleEF	HHD	4.8000e-005	2.0000e-006
tblVehicleEF	HHD	0.11	0.09
tblVehicleEF	HHD	1.8000e-004	5.3700e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	1.35	0.03
tblVehicleEF	HHD	0.03	0.02
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tblVehicleEF	HHD	0.46	0.36
tblVehicleEF	HHD	1.39	2.7700e-003

tblVehicleEF	HHD	6,867.98	1,402.59
tblVehicleEF	HHD	1,461.92	1,350.00
tblVehicleEF	HHD	4.62	0.03
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tblVehicleEF	HHD	2.54	2.88
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tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.01	9.7680e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8980e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	1.6300e-004	8.0000e-006
tblVehicleEF	HHD	2.9560e-003	1.1800e-004
tblVehicleEF	HHD	0.80	0.60
tblVehicleEF	HHD	9.2000e-005	4.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.8400e-004	5.5600e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	6.9000e-005	0.00
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tblVehicleEF	HHD	2.9560e-003	1.1800e-004

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tblVehicleEF	HHD	9.2000e-005	4.0000e-006
tblVehicleEF	HHD	0.11	0.09
tblVehicleEF	HHD	1.8400e-004	5.5600e-004
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tblVehicleEF	HHD	0.03	3.2330e-003
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tblVehicleEF	HHD	4.51	7.76
tblVehicleEF	HHD	0.45	0.32
tblVehicleEF	HHD	1.47	2.9120e-003
tblVehicleEF	HHD	5,957.03	1,414.57
tblVehicleEF	HHD	1,461.92	1,340.32
tblVehicleEF	HHD	4.62	0.03
tblVehicleEF	HHD	25.25	7.65
tblVehicleEF	HHD	2.67	3.02
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.8000e-005	0.00
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8680e-003	8.8710e-003
tblVehicleEF	HHD	0.01	0.05
tblVehicleEF	HHD	3.5000e-005	0.00
tblVehicleEF	HHD	6.7000e-005	4.0000e-006

tblVehicleEF	HHD	2.7490e-003	1.2100e-004
tblVehicleEF	HHD	0.91	0.54
tblVehicleEF	HHD	4.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.07	0.07
tblVehicleEF	HHD	1.9200e-004	5.6500e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	6.7000e-005	4.0000e-006
tblVehicleEF	HHD	2.7490e-003	1.2100e-004
tblVehicleEF	HHD	1.05	0.62
tblVehicleEF	HHD	4.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.11	0.08
tblVehicleEF	HHD	1.9200e-004	5.6500e-004
tblVehicleEF	HHD	0.05	1.0000e-006
tblVehicleEF	LDA	4.0430e-003	2.4680e-003
tblVehicleEF	LDA	5.4670e-003	0.05
tblVehicleEF	LDA	0.58	0.66
tblVehicleEF	LDA	1.16	2.12
tblVehicleEF	LDA	255.91	265.87
tblVehicleEF	LDA	58.81	54.73
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003
tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003

tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.01	9.5180e-003
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.07	0.23
tblVehicleEF	LDA	2.5630e-003	2.6300e-003
tblVehicleEF	LDA	6.0800e-004	5.4200e-004
tblVehicleEF	LDA	0.05	0.07
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.08	0.25
tblVehicleEF	LDA	4.5900e-003	2.8100e-003
tblVehicleEF	LDA	4.7470e-003	0.05
tblVehicleEF	LDA	0.71	0.81
tblVehicleEF	LDA	1.02	1.87
tblVehicleEF	LDA	278.73	289.14
tblVehicleEF	LDA	58.81	54.24
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003
tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.12	0.12

tblVehicleEF	LDA	0.07	0.10
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.06	0.20
tblVehicleEF	LDA	2.7930e-003	2.8600e-003
tblVehicleEF	LDA	6.0500e-004	5.3700e-004
tblVehicleEF	LDA	0.10	0.14
tblVehicleEF	LDA	0.12	0.12
tblVehicleEF	LDA	0.07	0.10
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.21
tblVehicleEF	LDA	0.07	0.22
tblVehicleEF	LDA	3.8980e-003	2.3810e-003
tblVehicleEF	LDA	5.6140e-003	0.05
tblVehicleEF	LDA	0.54	0.62
tblVehicleEF	LDA	1.19	2.17
tblVehicleEF	LDA	249.57	259.47
tblVehicleEF	LDA	58.81	54.82
tblVehicleEF	LDA	0.05	0.04
tblVehicleEF	LDA	1.6140e-003	1.4470e-003
tblVehicleEF	LDA	2.2650e-003	1.9190e-003
tblVehicleEF	LDA	1.4880e-003	1.3330e-003
tblVehicleEF	LDA	2.0830e-003	1.7640e-003
tblVehicleEF	LDA	0.04	0.06
tblVehicleEF	LDA	0.11	0.11
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	9.8140e-003	9.1880e-003

tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.08	0.23
tblVehicleEF	LDA	2.4990e-003	2.5670e-003
tblVehicleEF	LDA	6.0800e-004	5.4200e-004
tblVehicleEF	LDA	0.04	0.06
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tblVehicleEF	LDA	0.04	0.24
tblVehicleEF	LDA	0.08	0.26
tblVehicleEF	LDT1	0.01	8.0140e-003
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	1.46	1.62
tblVehicleEF	LDT1	3.40	2.43
tblVehicleEF	LDT1	315.98	317.00
tblVehicleEF	LDT1	72.28	66.64
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.21	0.23
tblVehicleEF	LDT1	0.35	0.27
tblVehicleEF	LDT1	0.14	0.15
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.20	0.87
tblVehicleEF	LDT1	0.24	0.44

tblVehicleEF	LDT1	3.1780e-003	3.1370e-003
tblVehicleEF	LDT1	7.8300e-004	6.5900e-004
tblVehicleEF	LDT1	0.21	0.23
tblVehicleEF	LDT1	0.35	0.27
tblVehicleEF	LDT1	0.14	0.15
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.20	0.87
tblVehicleEF	LDT1	0.26	0.48
tblVehicleEF	LDT1	0.01	9.0560e-003
tblVehicleEF	LDT1	0.02	0.08
tblVehicleEF	LDT1	1.76	1.96
tblVehicleEF	LDT1	2.99	2.15
tblVehicleEF	LDT1	343.19	341.79
tblVehicleEF	LDT1	72.28	66.01
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.41	0.44
tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.21	0.38
tblVehicleEF	LDT1	3.4550e-003	3.3820e-003
tblVehicleEF	LDT1	7.7500e-004	6.5300e-004

tblVehicleEF	LDT1	0.41	0.44
tblVehicleEF	LDT1	0.43	0.34
tblVehicleEF	LDT1	0.27	0.29
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.20	0.88
tblVehicleEF	LDT1	0.23	0.42
tblVehicleEF	LDT1	0.01	7.7080e-003
tblVehicleEF	LDT1	0.02	0.09
tblVehicleEF	LDT1	1.37	1.51
tblVehicleEF	LDT1	3.46	2.48
tblVehicleEF	LDT1	307.88	309.49
tblVehicleEF	LDT1	72.28	66.77
tblVehicleEF	LDT1	0.14	0.14
tblVehicleEF	LDT1	2.5300e-003	2.2930e-003
tblVehicleEF	LDT1	3.6970e-003	2.9510e-003
tblVehicleEF	LDT1	2.3290e-003	2.1110e-003
tblVehicleEF	LDT1	3.4000e-003	2.7140e-003
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30
tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.25	0.45
tblVehicleEF	LDT1	3.0960e-003	3.0630e-003
tblVehicleEF	LDT1	7.8400e-004	6.6100e-004
tblVehicleEF	LDT1	0.18	0.19
tblVehicleEF	LDT1	0.39	0.30

tblVehicleEF	LDT1	0.12	0.13
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.23	1.01
tblVehicleEF	LDT1	0.27	0.50
tblVehicleEF	LDT2	5.6080e-003	4.2470e-003
tblVehicleEF	LDT2	7.2840e-003	0.07
tblVehicleEF	LDT2	0.76	0.98
tblVehicleEF	LDT2	1.53	2.73
tblVehicleEF	LDT2	355.02	338.79
tblVehicleEF	LDT2	81.24	71.51
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.10	0.33
tblVehicleEF	LDT2	3.5560e-003	3.3520e-003
tblVehicleEF	LDT2	8.3800e-004	7.0800e-004
tblVehicleEF	LDT2	0.07	0.11
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.02	0.03

tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.11	0.37
tblVehicleEF	LDT2	6.3630e-003	4.8280e-003
tblVehicleEF	LDT2	6.3270e-003	0.06
tblVehicleEF	LDT2	0.93	1.20
tblVehicleEF	LDT2	1.35	2.42
tblVehicleEF	LDT2	386.34	362.86
tblVehicleEF	LDT2	81.24	70.86
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.29
tblVehicleEF	LDT2	3.8710e-003	3.5900e-003
tblVehicleEF	LDT2	8.3500e-004	7.0100e-004
tblVehicleEF	LDT2	0.14	0.22
tblVehicleEF	LDT2	0.14	0.17
tblVehicleEF	LDT2	0.10	0.17
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.06	0.44
tblVehicleEF	LDT2	0.09	0.32

tblVehicleEF	LDT2	5.3900e-003	4.0760e-003
tblVehicleEF	LDT2	7.4940e-003	0.07
tblVehicleEF	LDT2	0.71	0.91
tblVehicleEF	LDT2	1.57	2.80
tblVehicleEF	LDT2	345.65	331.49
tblVehicleEF	LDT2	81.24	71.65
tblVehicleEF	LDT2	0.08	0.09
tblVehicleEF	LDT2	1.6030e-003	1.4980e-003
tblVehicleEF	LDT2	2.3320e-003	1.9580e-003
tblVehicleEF	LDT2	1.4740e-003	1.3790e-003
tblVehicleEF	LDT2	2.1450e-003	1.8010e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.01	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.10	0.34
tblVehicleEF	LDT2	3.4620e-003	3.2800e-003
tblVehicleEF	LDT2	8.3900e-004	7.0900e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.13	0.15
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.51
tblVehicleEF	LDT2	0.11	0.38
tblVehicleEF	LHD1	5.4460e-003	4.8820e-003
tblVehicleEF	LHD1	0.01	5.3310e-003

tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.21	1.60
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004

tblVehicleEF	LHD1	3.8710e-003	3.1780e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.9010e-003	1.5570e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.31	0.50
tblVehicleEF	LHD1	0.28	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8940e-003
tblVehicleEF	LHD1	0.01	5.4200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.97	0.73
tblVehicleEF	LHD1	2.29	0.92
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.97
tblVehicleEF	LHD1	30.36	10.46
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.08	1.51
tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003

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tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4700e-004	1.0300e-004
tblVehicleEF	LHD1	7.2450e-003	5.9530e-003
tblVehicleEF	LHD1	0.12	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.6380e-003	2.9980e-003
tblVehicleEF	LHD1	0.10	0.08
tblVehicleEF	LHD1	0.32	0.50
tblVehicleEF	LHD1	0.27	0.08
tblVehicleEF	LHD1	5.4460e-003	4.8810e-003
tblVehicleEF	LHD1	0.01	5.3180e-003
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.17
tblVehicleEF	LHD1	0.96	0.72
tblVehicleEF	LHD1	2.41	0.96
tblVehicleEF	LHD1	9.26	9.44
tblVehicleEF	LHD1	607.95	639.95
tblVehicleEF	LHD1	30.36	10.54
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	2.18	1.59

tblVehicleEF	LHD1	9.7200e-004	9.7000e-004
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.7100e-004	2.3300e-004
tblVehicleEF	LHD1	9.3000e-004	9.2800e-004
tblVehicleEF	LHD1	2.5390e-003	2.5010e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	8.0100e-004	2.1400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.26	0.08
tblVehicleEF	LHD1	9.3000e-005	9.1000e-005
tblVehicleEF	LHD1	5.9620e-003	6.2250e-003
tblVehicleEF	LHD1	3.4900e-004	1.0400e-004
tblVehicleEF	LHD1	3.4570e-003	2.8250e-003
tblVehicleEF	LHD1	0.11	0.09
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7350e-003	1.4150e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.33	0.53
tblVehicleEF	LHD1	0.28	0.08
tblVehicleEF	LHD2	3.6660e-003	3.1720e-003
tblVehicleEF	LHD2	4.5290e-003	3.8570e-003

tblVehicleEF	LHD2	8.3110e-003	9.0280e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.15	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.29
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.71	1.77
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005

tblVehicleEF	LHD2	1.4980e-003	1.6870e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.7800e-004	8.4200e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1790e-003
tblVehicleEF	LHD2	4.5800e-003	3.8860e-003
tblVehicleEF	LHD2	8.0210e-003	8.7250e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.51	0.53
tblVehicleEF	LHD2	1.10	0.53
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.25
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.62	1.67
tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003

tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1560e-003
tblVehicleEF	LHD2	2.5600e-004	7.2000e-005
tblVehicleEF	LHD2	2.8320e-003	3.1830e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4720e-003	1.6130e-003
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.25
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	LHD2	3.6660e-003	3.1700e-003
tblVehicleEF	LHD2	4.5170e-003	3.8490e-003
tblVehicleEF	LHD2	8.3600e-003	9.0930e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.50	0.53
tblVehicleEF	LHD2	1.16	0.56
tblVehicleEF	LHD2	14.48	14.86
tblVehicleEF	LHD2	604.20	638.83
tblVehicleEF	LHD2	23.56	7.30
tblVehicleEF	LHD2	0.12	0.12
tblVehicleEF	LHD2	1.70	1.75

tblVehicleEF	LHD2	1.3360e-003	1.4390e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.8700e-004	1.1400e-004
tblVehicleEF	LHD2	1.2780e-003	1.3770e-003
tblVehicleEF	LHD2	2.6970e-003	2.7110e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5600e-004	1.0500e-004
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.11	0.04
tblVehicleEF	LHD2	1.4100e-004	1.4200e-004
tblVehicleEF	LHD2	5.8740e-003	6.1550e-003
tblVehicleEF	LHD2	2.5700e-004	7.2000e-005
tblVehicleEF	LHD2	1.1910e-003	1.3290e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.6000e-004	7.0100e-004
tblVehicleEF	LHD2	0.07	0.07
tblVehicleEF	LHD2	0.09	0.27
tblVehicleEF	LHD2	0.12	0.05
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24

tblVehicleEF	MCY	19.52	19.61
tblVehicleEF	MCY	9.67	8.55
tblVehicleEF	MCY	165.74	208.30
tblVehicleEF	MCY	46.23	60.73
tblVehicleEF	MCY	1.13	1.13
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.15	2.16
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0380e-003	2.0610e-003
tblVehicleEF	MCY	6.8100e-004	6.0100e-004
tblVehicleEF	MCY	1.69	1.66
tblVehicleEF	MCY	0.85	0.84
tblVehicleEF	MCY	0.92	0.90
tblVehicleEF	MCY	2.65	2.65
tblVehicleEF	MCY	0.57	1.87
tblVehicleEF	MCY	2.26	1.99
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.14	0.22
tblVehicleEF	MCY	20.23	20.27
tblVehicleEF	MCY	9.11	8.00

tblVehicleEF	MCY	165.74	209.26
tblVehicleEF	MCY	46.23	59.19
tblVehicleEF	MCY	0.98	0.98
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.13	2.13
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	1.86	1.63
tblVehicleEF	MCY	2.0490e-003	2.0710e-003
tblVehicleEF	MCY	6.6500e-004	5.8600e-004
tblVehicleEF	MCY	3.35	3.28
tblVehicleEF	MCY	1.24	1.23
tblVehicleEF	MCY	2.10	2.05
tblVehicleEF	MCY	2.62	2.63
tblVehicleEF	MCY	0.57	1.86
tblVehicleEF	MCY	2.02	1.77
tblVehicleEF	MCY	0.42	0.32
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	19.04	19.14
tblVehicleEF	MCY	9.62	8.49
tblVehicleEF	MCY	165.74	207.52
tblVehicleEF	MCY	46.23	60.64

tblVehicleEF	MCY	1.12	1.12
tblVehicleEF	MCY	1.7750e-003	1.7570e-003
tblVehicleEF	MCY	3.4010e-003	2.8660e-003
tblVehicleEF	MCY	1.6600e-003	1.6440e-003
tblVehicleEF	MCY	3.2060e-003	2.7000e-003
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.15	2.15
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.08	1.83
tblVehicleEF	MCY	2.0310e-003	2.0540e-003
tblVehicleEF	MCY	6.8100e-004	6.0000e-004
tblVehicleEF	MCY	1.60	1.59
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	0.74	0.73
tblVehicleEF	MCY	2.64	2.65
tblVehicleEF	MCY	0.65	2.12
tblVehicleEF	MCY	2.27	1.99
tblVehicleEF	MDV	0.01	5.7580e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.42	1.20
tblVehicleEF	MDV	3.18	3.27
tblVehicleEF	MDV	488.89	421.49
tblVehicleEF	MDV	110.15	88.73
tblVehicleEF	MDV	0.17	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003

tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.25	0.45
tblVehicleEF	MDV	4.9000e-003	4.1680e-003
tblVehicleEF	MDV	1.1570e-003	8.7800e-004
tblVehicleEF	MDV	0.11	0.13
tblVehicleEF	MDV	0.20	0.17
tblVehicleEF	MDV	0.09	0.11
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.27	0.49
tblVehicleEF	MDV	0.01	6.5120e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.73	1.46
tblVehicleEF	MDV	2.81	2.88
tblVehicleEF	MDV	530.71	447.07
tblVehicleEF	MDV	110.15	87.92
tblVehicleEF	MDV	0.16	0.11
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003

tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.21	0.39
tblVehicleEF	MDV	5.3230e-003	4.4210e-003
tblVehicleEF	MDV	1.1510e-003	8.7000e-004
tblVehicleEF	MDV	0.22	0.26
tblVehicleEF	MDV	0.23	0.20
tblVehicleEF	MDV	0.17	0.21
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.11	0.50
tblVehicleEF	MDV	0.23	0.43
tblVehicleEF	MDV	0.01	5.5370e-003
tblVehicleEF	MDV	0.02	0.09
tblVehicleEF	MDV	1.33	1.12
tblVehicleEF	MDV	3.24	3.34
tblVehicleEF	MDV	476.42	413.84
tblVehicleEF	MDV	110.15	88.88
tblVehicleEF	MDV	0.16	0.12
tblVehicleEF	MDV	1.7110e-003	1.5730e-003
tblVehicleEF	MDV	2.4630e-003	2.0550e-003
tblVehicleEF	MDV	1.5780e-003	1.4510e-003
tblVehicleEF	MDV	2.2660e-003	1.8910e-003
tblVehicleEF	MDV	0.09	0.10

tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.25	0.46
tblVehicleEF	MDV	4.7750e-003	4.0920e-003
tblVehicleEF	MDV	1.1590e-003	8.8000e-004
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.21	0.18
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.05	0.03
tblVehicleEF	MDV	0.13	0.57
tblVehicleEF	MDV	0.28	0.50
tblVehicleEF	MH	0.03	3.3370e-003
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tblVehicleEF	MH	1.0860e-003	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
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tblVehicleEF	MH	1.56	0.00

tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8100e-004	0.00
tblVehicleEF	MH	1.56	0.00
tblVehicleEF	MH	0.08	0.00
tblVehicleEF	MH	0.54	0.00
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tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
tblVehicleEF	MH	0.03	3.3370e-003
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tblVehicleEF	MH	0.01	0.02
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tblVehicleEF	MH	2.87	0.00

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tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MH	9.9470e-003	8.9030e-003
tblVehicleEF	MH	6.7400e-004	0.00
tblVehicleEF	MH	2.87	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	1.06	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.37	0.00
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tblVehicleEF	MH	1.65	4.38
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tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	1.0860e-003	0.00
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tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.09	0.07
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.35	0.00
tblVehicleEF	MH	9.9460e-003	8.9030e-003
tblVehicleEF	MH	6.8200e-004	0.00
tblVehicleEF	MH	1.58	0.00
tblVehicleEF	MH	0.10	0.00
tblVehicleEF	MH	0.53	0.00
tblVehicleEF	MH	0.13	0.08
tblVehicleEF	MH	0.03	0.00
tblVehicleEF	MH	0.39	0.00
tblVehicleEF	MHD	0.02	3.1500e-003
tblVehicleEF	MHD	3.7220e-003	5.9790e-003
tblVehicleEF	MHD	0.06	8.4870e-003
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tblVehicleEF	MHD	151.96	74.93
tblVehicleEF	MHD	1,066.63	1,001.03
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tblVehicleEF	MHD	1.0680e-003	2.4180e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005

tblVehicleEF	MHD	1.0220e-003	2.3130e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.4610e-003	7.1000e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.6100e-004	8.1000e-005
tblVehicleEF	MHD	1.7450e-003	7.1900e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	8.5800e-004	3.5500e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.10
tblVehicleEF	MHD	0.40	0.05
tblVehicleEF	MHD	0.02	2.9880e-003
tblVehicleEF	MHD	3.7740e-003	6.0080e-003
tblVehicleEF	MHD	0.05	8.2030e-003
tblVehicleEF	MHD	0.26	0.28
tblVehicleEF	MHD	0.28	0.57
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tblVehicleEF	MHD	160.96	76.44

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tblVehicleEF	MHD	0.93	2.23
tblVehicleEF	MHD	9.0000e-004	2.0410e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	8.6100e-004	1.9530e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.36	0.04
tblVehicleEF	MHD	1.5460e-003	7.2500e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.5600e-004	8.0000e-005
tblVehicleEF	MHD	3.3760e-003	1.3770e-003
tblVehicleEF	MHD	0.06	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.6840e-003	7.0100e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.39	0.05

tblVehicleEF	MHD	0.02	3.3820e-003
tblVehicleEF	MHD	3.6890e-003	5.9600e-003
tblVehicleEF	MHD	0.06	8.5610e-003
tblVehicleEF	MHD	0.49	0.43
tblVehicleEF	MHD	0.27	0.57
tblVehicleEF	MHD	6.14	1.02
tblVehicleEF	MHD	139.53	72.84
tblVehicleEF	MHD	1,066.63	1,001.03
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tblVehicleEF	MHD	0.62	0.67
tblVehicleEF	MHD	0.98	2.35
tblVehicleEF	MHD	1.2990e-003	2.9380e-003
tblVehicleEF	MHD	6.4490e-003	0.08
tblVehicleEF	MHD	7.8800e-004	9.6000e-005
tblVehicleEF	MHD	1.2430e-003	2.8110e-003
tblVehicleEF	MHD	6.1670e-003	0.08
tblVehicleEF	MHD	7.2400e-004	8.8000e-005
tblVehicleEF	MHD	1.3320e-003	5.6300e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
tblVehicleEF	MHD	0.03	0.11
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.37	0.05
tblVehicleEF	MHD	1.3440e-003	6.9100e-004
tblVehicleEF	MHD	0.01	9.5290e-003
tblVehicleEF	MHD	6.6300e-004	8.1000e-005

tblVehicleEF	MHD	1.3320e-003	5.6300e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	6.7900e-004	2.8800e-004
tblVehicleEF	MHD	0.04	0.12
tblVehicleEF	MHD	0.02	0.11
tblVehicleEF	MHD	0.41	0.05
tblVehicleEF	OBUS	0.01	8.9240e-003
tblVehicleEF	OBUS	8.0950e-003	8.5070e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.27	0.50
tblVehicleEF	OBUS	0.54	0.93
tblVehicleEF	OBUS	6.17	2.58
tblVehicleEF	OBUS	75.04	73.28
tblVehicleEF	OBUS	1,098.07	1,407.22
tblVehicleEF	OBUS	70.10	20.86
tblVehicleEF	OBUS	0.35	0.44
tblVehicleEF	OBUS	1.12	1.70
tblVehicleEF	OBUS	1.2100e-004	1.7750e-003
tblVehicleEF	OBUS	6.0450e-003	0.04
tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	1.1600e-004	1.6990e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.04	0.05

tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.39	0.12
tblVehicleEF	OBUS	7.2800e-004	6.9900e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0900e-004	2.0600e-004
tblVehicleEF	OBUS	2.1800e-003	2.5990e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	9.3000e-004	1.1120e-003
tblVehicleEF	OBUS	0.05	0.11
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.42	0.14
tblVehicleEF	OBUS	0.01	8.9470e-003
tblVehicleEF	OBUS	8.2540e-003	8.6370e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.26	0.48
tblVehicleEF	OBUS	0.55	0.94
tblVehicleEF	OBUS	5.76	2.41
tblVehicleEF	OBUS	78.48	73.81
tblVehicleEF	OBUS	1,098.07	1,407.25
tblVehicleEF	OBUS	70.10	20.57
tblVehicleEF	OBUS	0.36	0.45
tblVehicleEF	OBUS	1.04	1.59
tblVehicleEF	OBUS	1.0200e-004	1.5000e-003
tblVehicleEF	OBUS	6.0450e-003	0.04

tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	9.8000e-005	1.4350e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	4.0690e-003	4.7330e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	1.7890e-003	2.1320e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.37	0.12
tblVehicleEF	OBUS	7.6100e-004	7.0400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.0200e-004	2.0400e-004
tblVehicleEF	OBUS	4.0690e-003	4.7330e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	1.7890e-003	2.1320e-003
tblVehicleEF	OBUS	0.05	0.11
tblVehicleEF	OBUS	0.05	0.26
tblVehicleEF	OBUS	0.40	0.13
tblVehicleEF	OBUS	0.01	8.9200e-003
tblVehicleEF	OBUS	8.0660e-003	8.4690e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.28	0.53
tblVehicleEF	OBUS	0.54	0.92
tblVehicleEF	OBUS	6.22	2.60

tblVehicleEF	OBUS	70.30	72.56
tblVehicleEF	OBUS	1,098.07	1,407.21
tblVehicleEF	OBUS	70.10	20.90
tblVehicleEF	OBUS	0.34	0.44
tblVehicleEF	OBUS	1.11	1.68
tblVehicleEF	OBUS	1.4700e-004	2.1560e-003
tblVehicleEF	OBUS	6.0450e-003	0.04
tblVehicleEF	OBUS	8.2300e-004	1.9000e-004
tblVehicleEF	OBUS	1.4100e-004	2.0620e-003
tblVehicleEF	OBUS	5.7680e-003	0.04
tblVehicleEF	OBUS	7.5700e-004	1.7400e-004
tblVehicleEF	OBUS	1.8870e-003	2.3830e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	8.5400e-004	1.0620e-003
tblVehicleEF	OBUS	0.04	0.09
tblVehicleEF	OBUS	0.05	0.27
tblVehicleEF	OBUS	0.39	0.13
tblVehicleEF	OBUS	6.8300e-004	6.9200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	8.1000e-004	2.0700e-004
tblVehicleEF	OBUS	1.8870e-003	2.3830e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	8.5400e-004	1.0620e-003
tblVehicleEF	OBUS	0.05	0.11
tblVehicleEF	OBUS	0.05	0.27

tblVehicleEF	OBUS	0.42	0.14
tblVehicleEF	SBUS	0.84	0.08
tblVehicleEF	SBUS	0.01	6.6110e-003
tblVehicleEF	SBUS	0.06	6.9670e-003
tblVehicleEF	SBUS	7.83	3.03
tblVehicleEF	SBUS	0.64	0.53
tblVehicleEF	SBUS	6.66	0.94
tblVehicleEF	SBUS	1,146.29	366.87
tblVehicleEF	SBUS	1,103.40	1,115.27
tblVehicleEF	SBUS	53.92	6.06
tblVehicleEF	SBUS	10.00	3.57
tblVehicleEF	SBUS	4.65	4.82
tblVehicleEF	SBUS	0.01	4.0660e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
tblVehicleEF	SBUS	0.01	3.8900e-003
tblVehicleEF	SBUS	2.6950e-003	2.6510e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
tblVehicleEF	SBUS	4.6830e-003	1.3080e-003
tblVehicleEF	SBUS	0.03	8.6250e-003
tblVehicleEF	SBUS	0.94	0.36
tblVehicleEF	SBUS	2.1770e-003	6.2500e-004
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.37	0.04

tblVehicleEF	SBUS	0.01	3.5040e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.5500e-004	6.0000e-005
tblVehicleEF	SBUS	4.6830e-003	1.3080e-003
tblVehicleEF	SBUS	0.03	8.6250e-003
tblVehicleEF	SBUS	1.35	0.52
tblVehicleEF	SBUS	2.1770e-003	6.2500e-004
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.02	0.05
tblVehicleEF	SBUS	0.40	0.04
tblVehicleEF	SBUS	0.84	0.08
tblVehicleEF	SBUS	0.01	6.6860e-003
tblVehicleEF	SBUS	0.05	5.8380e-003
tblVehicleEF	SBUS	7.71	2.99
tblVehicleEF	SBUS	0.65	0.54
tblVehicleEF	SBUS	4.83	0.68
tblVehicleEF	SBUS	1,198.60	377.09
tblVehicleEF	SBUS	1,103.40	1,115.28
tblVehicleEF	SBUS	53.92	5.63
tblVehicleEF	SBUS	10.32	3.66
tblVehicleEF	SBUS	4.37	4.53
tblVehicleEF	SBUS	9.1190e-003	3.4340e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
tblVehicleEF	SBUS	8.7240e-003	3.2850e-003
tblVehicleEF	SBUS	2.6950e-003	2.6510e-003

tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
tblVehicleEF	SBUS	8.4640e-003	2.3620e-003
tblVehicleEF	SBUS	0.03	9.1440e-003
tblVehicleEF	SBUS	0.93	0.36
tblVehicleEF	SBUS	4.0830e-003	1.1650e-003
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.31	0.03
tblVehicleEF	SBUS	0.01	3.6000e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.2400e-004	5.6000e-005
tblVehicleEF	SBUS	8.4640e-003	2.3620e-003
tblVehicleEF	SBUS	0.03	9.1440e-003
tblVehicleEF	SBUS	1.35	0.52
tblVehicleEF	SBUS	4.0830e-003	1.1650e-003
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.01	0.05
tblVehicleEF	SBUS	0.34	0.04
tblVehicleEF	SBUS	0.84	0.08
tblVehicleEF	SBUS	0.01	6.6040e-003
tblVehicleEF	SBUS	0.07	7.2110e-003
tblVehicleEF	SBUS	8.00	3.09
tblVehicleEF	SBUS	0.63	0.53
tblVehicleEF	SBUS	7.02	0.98
tblVehicleEF	SBUS	1,074.07	352.76
tblVehicleEF	SBUS	1,103.40	1,115.26

tblVehicleEF	SBUS	53.92	6.14
tblVehicleEF	SBUS	9.56	3.44
tblVehicleEF	SBUS	4.60	4.78
tblVehicleEF	SBUS	0.01	4.9380e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	4.5700e-004	4.0000e-005
tblVehicleEF	SBUS	0.01	4.7240e-003
tblVehicleEF	SBUS	2.6950e-003	2.6510e-003
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	4.2000e-004	3.6000e-005
tblVehicleEF	SBUS	4.1680e-003	1.1480e-003
tblVehicleEF	SBUS	0.03	8.8290e-003
tblVehicleEF	SBUS	0.94	0.36
tblVehicleEF	SBUS	2.1000e-003	6.0300e-004
tblVehicleEF	SBUS	0.11	0.10
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.38	0.04
tblVehicleEF	SBUS	0.01	3.3710e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6100e-004	6.1000e-005
tblVehicleEF	SBUS	4.1680e-003	1.1480e-003
tblVehicleEF	SBUS	0.03	8.8290e-003
tblVehicleEF	SBUS	1.35	0.52
tblVehicleEF	SBUS	2.1000e-003	6.0300e-004
tblVehicleEF	SBUS	0.13	0.11
tblVehicleEF	SBUS	0.02	0.06

tblVehicleEF	SBUS	0.41	0.05
tblVehicleEF	UBUS	1.51	3.35
tblVehicleEF	UBUS	0.09	0.02
tblVehicleEF	UBUS	8.45	26.05
tblVehicleEF	UBUS	15.26	1.50
tblVehicleEF	UBUS	1,822.40	1,617.71
tblVehicleEF	UBUS	153.45	18.08
tblVehicleEF	UBUS	4.95	0.32
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	9.7430e-003	1.6370e-003
tblVehicleEF	UBUS	0.11	9.7740e-003
tblVehicleEF	UBUS	4.7860e-003	7.1300e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
tblVehicleEF	UBUS	9.9960e-003	4.8690e-003
tblVehicleEF	UBUS	1.8100e-003	1.7900e-004
tblVehicleEF	UBUS	9.7430e-003	1.6370e-003
tblVehicleEF	UBUS	0.11	9.7740e-003
tblVehicleEF	UBUS	4.7860e-003	7.1300e-004

tblVehicleEF	UBUS	2.08	3.43
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.28	0.08
tblVehicleEF	UBUS	1.52	3.35
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	8.53	26.06
tblVehicleEF	UBUS	13.06	1.28
tblVehicleEF	UBUS	1,822.40	1,617.72
tblVehicleEF	UBUS	153.45	17.70
tblVehicleEF	UBUS	4.62	0.31
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	0.02	2.9250e-003
tblVehicleEF	UBUS	0.14	0.01
tblVehicleEF	UBUS	9.6600e-003	1.4550e-003
tblVehicleEF	UBUS	0.53	0.05
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.06	0.07
tblVehicleEF	UBUS	9.9970e-003	4.8690e-003
tblVehicleEF	UBUS	1.7720e-003	1.7500e-004
tblVehicleEF	UBUS	0.02	2.9250e-003

tblVehicleEF	UBUS	0.14	0.01
tblVehicleEF	UBUS	9.6600e-003	1.4550e-003
tblVehicleEF	UBUS	2.09	3.43
tblVehicleEF	UBUS	0.02	0.05
tblVehicleEF	UBUS	1.17	0.07
tblVehicleEF	UBUS	1.51	3.35
tblVehicleEF	UBUS	0.09	0.02
tblVehicleEF	UBUS	8.44	26.05
tblVehicleEF	UBUS	15.44	1.49
tblVehicleEF	UBUS	1,822.40	1,617.71
tblVehicleEF	UBUS	153.45	18.06
tblVehicleEF	UBUS	4.92	0.31
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.06	2.9340e-003
tblVehicleEF	UBUS	1.4200e-003	1.6100e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.4780e-003
tblVehicleEF	UBUS	0.05	2.7920e-003
tblVehicleEF	UBUS	1.3060e-003	1.4800e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	0.52	0.05
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	1.18	0.07
tblVehicleEF	UBUS	9.9960e-003	4.8690e-003

tblVehicleEF	UBUS	1.8130e-003	1.7900e-004
tblVehicleEF	UBUS	8.9770e-003	1.7200e-003
tblVehicleEF	UBUS	0.13	0.01
tblVehicleEF	UBUS	4.3820e-003	7.5400e-004
tblVehicleEF	UBUS	2.08	3.43
tblVehicleEF	UBUS	0.03	0.05
tblVehicleEF	UBUS	1.29	0.08
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	34.30
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	0.39
tblVehicleTrips	SU_TR	1.68	0.39
tblVehicleTrips	WD_TR	1.68	0.39

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**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**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	652.9040	652.9040	0.0253	6.3200e-003	655.4190
Mobile	0.3338	13.1186	2.2604	0.0448	1.4816	0.1984	1.6799	0.4124	0.1898	0.6022	0.0000	4,319.3099	4,319.3099	0.0535	0.0000	4,320.6471
Offroad	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Waste						0.0000	0.0000		0.0000	0.0000	133.4970	0.0000	133.4970	7.8895	0.0000	330.7332
Water						0.0000	0.0000		0.0000	0.0000	51.3283	671.2271	722.5554	5.2996	0.1302	893.8499
Total	**3.3188**	**14.0349**	**2.7617**	**0.0470**	**1.4816**	**0.2323**	**1.7139**	**0.4124**	**0.2214**	**0.6338**	**184.8253**	**5,795.9997**	**5,980.8250**	**13.3173**	**0.1365**	**6,354.4436**

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Energy	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	537.4812	537.4812	0.0205	5.3300e-003	539.5833
Mobile	0.3338	13.1186	2.2604	0.0448	1.4816	0.1984	1.6799	0.4124	0.1898	0.6022	0.0000	4,319.3099	4,319.3099	0.0535	0.0000	4,320.6471
Offroad	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Waste						0.0000	0.0000		0.0000	0.0000	133.4970	0.0000	133.4970	7.8895	0.0000	330.7332
Water						0.0000	0.0000		0.0000	0.0000	51.3283	671.2271	722.5554	5.2996	0.1302	893.8499
Total	**3.3188**	**14.0349**	**2.7617**	**0.0470**	**1.4816**	**0.2323**	**1.7139**	**0.4124**	**0.2214**	**0.6338**	**184.8253**	**5,680.5768**	**5,865.4022**	**13.3125**	**0.1355**	**6,238.6078**

	ROG	**NOx**	**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**	**1.99**	**1.93**	**0.04**	**0.73**	**1.82**

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	4/1/2020	4/1/2020	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 14.12

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.3338	13.1186	2.2604	0.0448	1.4816	0.1984	1.6799	0.4124	0.1898	0.6022	0.0000	4,319.3099	4,319.3099	0.0535	0.0000	4,320.6471
Unmitigated	0.3338	13.1186	2.2604	0.0448	1.4816	0.1984	1.6799	0.4124	0.1898	0.6022	0.0000	4,319.3099	4,319.3099	0.0535	0.0000	4,320.6471

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	272.86	272.86	272.86	3,406,658	3,406,658
Total	272.86	272.86	272.86	3,406,658	3,406,658

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
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
Unrefrigerated Warehouse-No Rail	34.30	8.40	6.90	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Parking Lot	0.542116	0.037578	0.185203	0.118503	0.016241	0.005141	0.017392	0.068695	0.001383	0.001183	0.004582	0.000945	0.001038
Unrefrigerated Warehouse-No Rail	0.000000	0.000000	0.000000	0.000000	0.106900	0.000000	0.106900	0.786200	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	461.6913	461.6913	0.0191	3.9400e-003	463.3430
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	577.1141	577.1141	0.0238	4.9300e-003	579.1788
NaturalGas Mitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
NaturalGas Unmitigated	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403

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					
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
Unrefrigerated Warehouse-No Rail	1.42025e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7899**	**75.7899**	**1.4500e-003**	**1.3900e-003**	**76.2403**

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					
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
Unrefrigerated Warehouse-No Rail	1.42025e+006	7.6600e-003	0.0696	0.0585	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7899	75.7899	1.4500e-003	1.3900e-003	76.2403
Total		**7.6600e-003**	**0.0696**	**0.0585**	**4.2000e-004**		**5.2900e-003**	**5.2900e-003**		**5.2900e-003**	**5.2900e-003**	**0.0000**	**75.7899**	**75.7899**	**1.4500e-003**	**1.3900e-003**	**76.2403**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	160158	51.0297	2.1100e-003	4.4000e-004	51.2123
Unrefrigerated Warehouse-No Rail	1.65113e+006	526.0844	0.0217	4.4900e-003	527.9665
Total		**577.1141**	**0.0238**	**4.9300e-003**	**579.1788**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	128126	40.8238	1.6900e-003	3.5000e-004	40.9698
Unrefrigerated Warehouse-No Rail	1.3209e+006	420.8675	0.0174	3.5900e-003	422.3732
Total		**461.6913**	**0.0191**	**3.9400e-003**	**463.3430**

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	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Unmitigated	2.9025	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

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	0.3328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7800e-003	1.8000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.0370	0.0370	1.0000e-004	0.0000	0.0395
Total	**2.9025**	**1.8000e-004**	**0.0191**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.0370**	**0.0370**	**1.0000e-004**	**0.0000**	**0.0395**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	722.5554	5.2996	0.1302	893.8499
Unmitigated	722.5554	5.2996	0.1302	893.8499

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	161.789 / 0	722.5554	5.2996	0.1302	893.8499
Total		**722.5554**	**5.2996**	**0.1302**	**893.8499**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
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
Unrefrigerated Warehouse-No Rail	161.789 / 0	722.5554	5.2996	0.1302	893.8499
Total		**722.5554**	**5.2996**	**0.1302**	**893.8499**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	133.4970	7.8895	0.0000	330.7332
Unmitigated	133.4970	7.8895	0.0000	330.7332

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	657.65	133.4970	7.8895	0.0000	330.7332
Total		**133.4970**	**7.8895**	**0.0000**	**330.7332**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	657.65	133.4970	7.8895	0.0000	330.7332
Total		**133.4970**	**7.8895**	**0.0000**	**330.7332**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	3	4.00	365	200	0.37	CNG

UnMitigated/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
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0748	0.8465	0.4238	1.7400e-003		0.0286	0.0286		0.0263	0.0263	0.0000	152.5217	152.5217	0.0493	0.0000	153.7549
Total	**0.0748**	**0.8465**	**0.4238**	**1.7400e-003**		**0.0286**	**0.0286**		**0.0263**	**0.0263**	**0.0000**	**152.5217**	**152.5217**	**0.0493**	**0.0000**	**153.7549**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX 3.4:

SCREENING TABLES

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Table 2: Screening Table for GHG Implementation Measures for Commercial Development and Public Facilities

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2-EE10: Exceed Energy Efficiency Standards in New Commercial Units			
EE10.A Building Envelope			
EE10.A.1 Insulation	• 2017 Title 24 Requirements (walls R-13; roof/attic R-30) • Modestly Enhanced Insulation (walls R-13, roof/attic R-38) • Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) • Greatly Enhanced Insulation (spray foam insulated walls R-15 or higher, roof/attic R-38 or higher)	0 points 9 points 11 points 12 points	11
EE10.A.2 Windows	• 2016 Title 24 Windows (0.57 U-factor, 0.4 SHGC) • Modestly Enhanced Window Insulation (0.4 U-factor, 0.32 SHGC) • Enhanced Window Insulation (0.32 U-factor, 0.25 SHGC) • Greatly Enhanced Window Insulation (0.28 or less U-factor, 0.22 or less SHGC)	0 points 4 points 5 points 7 points	7
EE10.A.3 Cool Roofs	• Modest Cool Roof (CRRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance) • Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal emittance) • Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	7 points 8 points 10 points	7
EE10.A.4 Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. • Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent) • Blower Door HERS Verified Envelope Leakage or equivalent	7 points 6 points	6
EE10.A.5 Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. • Modest Thermal Mass (10% of floor or 10% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials) • Enhanced Thermal Mass (20% of floor or 20% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials) • Enhanced Thermal Mass (80% of floor or 80% of walls 12" or more thick exposed concrete or masonry with no permanently installed floor covering such as carpet, linoleum, wood, or other insulating materials)	2 points 4 points 14 points	

Feature	Description	Assigned Point Values	Project Points
EE10.B Indoor Space Efficiencies			
EE10.B.1 Heating/ Cooling Distribution System	• Minimum Duct Insulation (R-4.2 required) • Modest Duct insulation (R-6) • Enhanced Duct Insulation (R-8) • Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	0 points 5 points 6 points 8 points	5
EE10.B.2 Space Heating/ Cooling Equipment	• 2016 Title 24 Minimum HVAC Efficiency (EER 13/75% AFUE or 7.7 HSPF) • Improved Efficiency HVAC (EER 14/78% AFUE or 8 HSPF) • High Efficiency HVAC (EER 15/80% AFUE or 8.5 HSPF) • Very High Efficiency HVAC (EER 16/82% AFUE or 9 HSPF)	0 points 4 points 5 points 7 points	4
EE10.B.3 Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD	
EE10.B.4 Water Heaters	• 2016 Title 24 Minimum Efficiency (0.57 Energy Factor) • Improved Efficiency Water Heater (0.675 Energy Factor) • High Efficiency Water Heater (0.72 Energy Factor) • Very High Efficiency Water Heater (0.92 Energy Factor) • Solar Pre-heat System (0.2 Net Solar Fraction) • Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	0 points 8 points 10 points 11 points 2 points 5 points	10
EE10.B.5 Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. • All peripheral rooms within building have at least one window or skylight • All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.) • All rooms daylighted	0 points 1 point 1 point	1
EE10.B.6 Artificial Lighting	• Efficient Lights (25% of in-unit fixtures considered high efficiency. High efficiency is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40watt) • High Efficiency Lights (50% of in-unit fixtures are high efficiency) • Very High Efficiency Lights (100% of in-unit fixtures are high efficiency)	5 points 7 points 8 points	7
EE10.B.7 Appliances	• Energy Star Commercial Refrigerator (new) • Energy Star Commercial Dishwasher (new) • Energy Star Commercial Clothes Washer	2 points 2 points 2 points	
EE10.C Miscellaneous Commercial Building Efficiencies			
EE10.C.1 Building Placement	North/south alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	4 points	
EE10.C.2 Shading	At least 90% of south-facing glazing will be shaded by vegetation or overhangs at noon on Jun 21st.	6 points	
EE10.C.3 Other	This allows innovation by the applicant to provide design features that increase the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD	

Feature	Description	Assigned Point Values	Project Points
EE10.C.4 Existing Commercial Buildings Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing commercial buildings within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case-by-case basis and shall have the approval of the Riverside County Planning Department. The decision to allow applicants to participate in this program will be evaluated based upon, but not limited to, the following: • Will the energy efficiency retrofit project benefit low income or disadvantaged communities? • Does the energy efficiency retrofit project provide co-benefits important to the County? • Point value will be determined based upon engineering and design criteria of the energy efficiency retrofit project.	TBD	
Reduction Measure R2-CE1: Clean Energy			
CE1.B Commercial/Industrial Renewable Energy Generation			
CE1.B.1 Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	8 points 12 points 16 points 19 points 23 points 26 points 30 points 34 points	
CE1.B.2 Wind Turbines	Some areas of the County lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Wind turbines as part of the commercial development such that the total power provided augments: • 30 percent of the power needs of the project • 40 percent of the power needs of the project • 50 percent of the power needs of the project • 60 percent of the power needs of the project • 70 percent of the power needs of the project • 80 percent of the power needs of the project • 90 percent of the power needs of the project • 100 percent of the power needs of the project	8 points 12 points 16 points 19 points 23 points 26 points 30 points 34 points	
CE1.B.3 Off-site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing residential or existing commercial/industrial. These off-site renewable energy retrofit project proposals will be determined on a case-by-case basis accompanied by a detailed plan documenting the quantity of renewable energy the proposal will generate. Point values will be based upon the energy generated by the proposal.	TBD	

Feature	Description	Assigned Point Values	Project Points
CE1.A.4 Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD	
Reduction Measure R2-W2: Exceed Water Efficiency Standards			
W2.D Irrigation and Landscaping			
W2.D.1 Water Efficient Landscaping	• Eliminate conventional turf from landscaping • Only moderate water using plants • Only low water using plants • Only California Native landscape that requires no or only supplemental irrigation	0 points 2 points 3 points 5 points	
W2.D.2 Water Efficient Irrigation Systems	• Low precipitation spray heads< .75"/hr or drip irrigation • Weather based irrigation control systems combined with drip irrigation (demonstrate 20% reduced water use)	1 point 3 points	
W2.D.3 Stormwater Reuse Systems	Innovative on-site stormwater collection, filtration, and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD	
W2.E Potable Water			
W2.E.1 Showers	Water Efficient Showerheads (2.0 gpm)	2 points	
W2.E.2 Toilets	• Water Efficient Toilets/Urinals (1.5 gpm) • Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	3 points 3 points	6
W2.E.3 Faucets	Water Efficient faucets (1.28 gpm)	2 points	2
W2.E.4 Commercial Dishwashers	Water Efficient dishwashers (20% water savings)	2 points	
W2.E.5 Commercial Laundry Washers	• Water Efficient laundry (15% water savings) • High Efficiency laundry Equipment that captures and reuses rinse water (30% water savings)	2 points 4 points	
W2.E.6 Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD	
W2.F Increase Commercial/Industrial Reclaimed Water Use			
W2.F.1 Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	

Feature	Description	Assigned Point Values	Project Points
Reduction Measure R2-T3: Ride-Sharing and Bike-to-Work Programs within Businesses			
T3.A.1 Alternative Scheduling	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered starting times, flexible schedules, or compressed work weeks. • Provide flexibility in scheduling such that at least 30% of employees participate in 9/80 work week, 4-day/40-hour work week, or telecommuting 1.5 days/week.	5 points	
T3.A.2 Car/Vanpools	• Car/vanpool program • Car/vanpool program with preferred parking • Car/vanpool with guaranteed ride home program • Subsidized employee incentive car/vanpool program *Note: combine all applicable points for total value*	1 point 2 points 3 points 5 points	
T3.A.3 Employee Bicycle/ Pedestrian Programs	• Complete sidewalk to residential within ½ mile • Complete bike path to residential within 3 miles • Bike lockers and secure racks • Showers and changing facilities • Subsidized employee walk/bike program *Note: combine all applicable points for total value*	1 point 1 point 1 point 2 points 3 points	
T3.A.4 Shuttle/Transit Programs	• Local transit within ¼ mile • Light rail transit within ½ mile • Shuttle service to light rail transit station • Guaranteed ride home program • Subsidized Transit passes *Note: combine all applicable points for total value*	1 point 3 points 5 points 1 points 2 points	
T3.A.5 Commute Trip Reduction	Employer based Commute Trip Reduction (CTR). CTRs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a TIA that demonstrates the trip/VMT reductions. Suggested point ranges: • Incentive based CTR Programs (1–8 points) • Mandatory CTR programs (5–20 points)	TBD	
T3.A.6 Other Trip Reduction Measures	Point values for other trip or VMT reduction measures not listed above may be calculated based on a TIA and/or other traffic data supporting the trip and/or VMT reductions.	TBD	
Reduction Measure R2-T1: Alternative Transportation Options			
T1.E Mixed-Use Development			
T1.E.1 Mixed-Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of mixed-use projects will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD	
T1.E.2 Local Retail Near Residential (Commercial only Projects)	Having residential developments within walking and biking distance of local retail helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD	

Feature	Description	Assigned Point Values	Project Points
T1.F Preferential Parking			
T1.F.1 Parking	• Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles. • Provide larger parking spaces that can accommodate vans used for ride-sharing programs and reserve them for vanpools and include adequate passenger waiting/loading areas.	1 point 1 point	
T1.G Signal Synchronization and Intelligent Traffic Systems			
T1.G.1 Signal Improvements	Techniques for improving traffic flow include: traffic signal coordination to reduce delay, incident management to increase response time to breakdowns and collisions, Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions, and speed management to reduce high free-flow speeds. • Synchronize signals along arterials used by project. • Connect signals along arterials to existing ITS.	1 point/signal 3 points/signal	
T1.H Increase Public Transit			
T1.H.1 Public Transit	The point value of a projects ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) demonstrating decreased use of private vehicles and increased use of public transportation. • Increased transit accessibility (1-15 points)	TBD	
Reduction Measure R2-T2: Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the County			
T2.B.1 Sidewalks	• Provide sidewalks on one side of the street (required) • Provide sidewalks on both sides of the street • Provide pedestrian linkage between commercial and residential land uses within 1 mile	0 points 1 point 3 points	
T2.B.2 Bicycle Paths	• Provide bicycle paths within project boundaries • Provide bicycle path linkages between commercial and other land uses • Provide bicycle path linkages between commercial and transit	1 point 2 points 5 points	
Reduction Measure R2-T4: Electrify the Fleet			
T4.B.1 Electric Vehicle Recharging	• Provide circuit and capacity in garages/parking areas for installation of electric vehicle charging stations. • Install electric vehicle charging stations in garages/parking areas	2 points/area 8 points/station	40 (5 stations)
T4.B.2 Neighborhood Electric Vehicle (NEV) Infrastructure	NEVs are electric vehicles usually built to have a top speed of 25 miles per hour, and a maximum loaded weight of 3,000 pounds. • Provide NEV safe routes within the project site. • Provide NEV safe routes between the project site and other land uses.	3 points 5 points	
Reduction Measure R2-S1: Reduce Waste to Landfills			
S1.B.1 Recycling	County initiated recycling program diverting 80% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the County fulfill this goal: • Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up • Provide commercial/industrial recycling programs that fulfills an on-site goal of 80% diversion of solid waste	2 points 5 points	

Feature	Description	Assigned Point Values	Project Points
Other GHG Reduction Feature Implementation			
O.B.1 Other GHG Emissions Reduction Features	This allows innovation by the applicant to provide commercial design features that the GHG emissions from construction and/or operation of the project not provided in the table. Note that engineering data will be required documenting the GHG reduction amount and point values given based upon emission reductions calculations using approved models, methods, and protocols.	TBD	
Total Points Earned by Commercial/Industrial Project:			106