

Glen Ivy Senior Community GREENHOUSE GAS ANALYSIS

COUNTY OF RIVERSIDE

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13031-02 GHG Report

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LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1181	California Water Conservation Landscaping Act of 2006
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	Glen Ivy Senior Community Air Quality Impact Analysis
BAU	Business As Usual
C_2F_6	Hexafluoroethane
C_2H_6	Ethane
CAA	Federal Clean Air Act
САР	Climate Action Plan
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALFIRE	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
CDFA	California Department of Food and Agriculture
CF ₄	Tetrafluoromethane
CFC	Chlorofluorocarbons
CH ₄	Methane
CHF ₃	Fluoroform
CH ₂ FCF	1,1,1,2-tetrafluoroethane
CH_3CF_2	1,1-difluoroethane

CNRA	California Natural Resources Agency
CNRA 2009	2009 California Climate Adaptation Strategy
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
СОР	Conference of the Parties
County	County of Riverside
CPUC	California Public Utilities Commission
СТС	California Transportation Commission
DOF	Department of Finance
DU	Dwelling Units
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GOBIZ	Governor's Office of Business and Economic Development
GWP	Global Warming Potential
H ₂ O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
hp	Horsepower
I-15	Interstate 15
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard
LEV III	Low-Emission Vehicle
MMR	Mandatory Reporting Rule
MMTCO ₂ e	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
MT/yr	Metric Tons Per Year



MTCO ₂ e	Metric Ton of Carbon Dioxide Equivalent
MWELO	California Department of Water Resources' Model Water
	Efficient
MY	Model Year
N ₂ 0	Nitrous Oxide
NDC	Nationally Determined Contributions
NF ₃	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
Non-Annex I	Developing Nations
OAL	Office of Administrative Law
OPR	Office of Planning and Research
PFC	Perfluorocarbons
PM ₁₀	Particulate Matter 10 microns in diameter or less
PM _{2.5}	Particulate Matter 2.5 microns in diameter or less
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Glen Ivy Senior Community
RPS	Renewable Portfolio Standards
RTP/SCS	Regional Transportation Plan/ Sustainable Communities
	Strategy
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
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
Sf	Square Feet
SF ₆	Sulfur Hexaflouride
SGC	Strategic Growth Council
SLPS	Short-Lived Climate Pollutant Strategy



SP	Service Population
SWCRB	State Water Resources Control Board
ТА	Temescal Valley Business Park (PAR190052) Traffic Impact
	Analysis
UNFCCC	United Nations' Framework Convention on Climate Change
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 *Glen Ivy Senior Community Greenhouse Gas Analysis* 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 (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

Analusia	Report Section	Significance Findings	
Analysis		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.	3.8	Less Than Significant	n/a
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.	3.8	Less Than Significant	n/a

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

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 Green Building Standards Code (CALGreen also referred to as 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 CO₂e (MTCO₂e) below the Adjusted Business As Usual (ABAU)¹ scenario by 2030 and at least 2,982,948 MTCO₂e 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 lessthan-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 75 dwelling units (DU) or 100,000 gross square feet (sf) of Community Care Facility development to offset its energy demand. For Community Care Facility developments, measure R2-CE1 requires a 20% offset in energy demand.



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1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for Glen Ivy Senior Community (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 Glen Ivy Senior Community site is generally located on the southwest corner of Temescal Canyon Road and Trilogy Parkway in the County of Riverside, as shown on Exhibit 1-A. The Project site is currently vacant. The Project site is currently designated for Commercial Retail (CR) uses (12). The Project site is entirely surrounded by residential uses. Interstate 15 (I-15) is approximately 0.40 miles east of the Project site.

1.2 PROJECT DESCRIPTION

As shown in Exhibit 1-B, the Project currently includes the development of 141 assisted living DUs (109 standard assisted living DUs and 32 memory care DUs) and 75 senior adult housing attached DUs. Consistent with the *Glen Ivy Senior Community Traffic Analysis* (TA) prepared by Urban Crossroads, Inc., this GHG study will evaluate the previous plan (which is more conservative), and consists of 130 beds of assisted living use and 35 memory care beds for standard assisted living for a total of 165 beds² plus the 76 senior adult housing attached DUs. The anticipated Project opening year is 2023.

This analysis is intended to describe GHG impacts associated with the expected operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

Per the TA, the Project is expected to generate a total of approximately 712 two-way vehicular trips per day (356 trips inbound and 356 trips outbound) (13).

²Based on the Site Plan, the 165 beds for the standard assisted living component is equivalent to 112 standard assisted living DUs and 32 memory care DUs for a total of 144 standard assisted living DUs.





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

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 (SF₆). 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 CO₂, CH₄, and N₂O 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.

Greenhouse Gases	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 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 feedback loop will continue is	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.

TABLE 2-1: GREENHOUSE GASES



Greenhouse Gases	Description	Sources	Health Effects
	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) (14).		
CO2	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 (15).	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 (16).	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 (17).

Greenhouse Gases	Description	Sources	Health Effects
CH4	CH4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH4 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 CH4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (18).	CH4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N2O	N ₂ O, also known as laughing gas, is a colorless GHG. Concentrations of N ₂ O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N ₂ O 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 ₂ O 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) (19).



Greenhouse Gases	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N ₂ O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (19).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH₄ or ethane (C₂H 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 (20).	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.



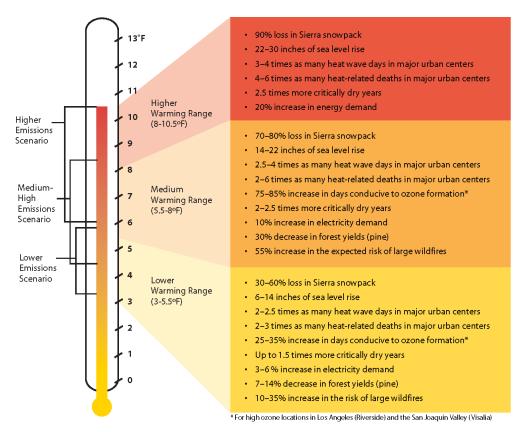
Greenhouse Gases	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), fluoroform (CHF ₃), 1,1,1,2-tetrafluoroethane (CH ₂ FCF), and 1,1-difluoroethane (CH ₃ CF ₂). Prior to 1990, the only significant emissions were of CHF ₃ . CH ₂ FCF 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 ₂ F 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) (21). 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.



Greenhouse Gases	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 (22).	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 (23).

The potential health effects related directly to the emissions of CO₂, CH₄, and N₂O 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 (24). Exhibit 2-A presents the potential impacts of global warming (25).

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 GLOBAL WARMING POTENTIAL

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 Second 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 SF₆ and GWP for the IPCC's 5th Assessment Report range from 1 for CO_2 to 23,500 for SF₆ (26).

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2 nd Assessment Report	5 th Assessment Report
CO ₂	See*	1	1
CH ₄	12 .4	21	28
N ₂ O	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

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

*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 2018. Based on the latest available data, the sum of these emissions totaled approximately 28,768,439 gigagram (Gg) CO_2e^3 (27) (28) 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 2018 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2010, respectively.



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 2018.

Emitting Countries	GHG Emissions (Gg CO2e)	
China	12,300,200	
United States	6,676,650	
European Union (28-member countries)	4,232,274	
Russian Federation	2,220,123	
India	2,100,850	
Japan	1,238,343	
Total	28,768,439	

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

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 United States (U.S.) emissions inventory total (29). 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 per year (MMTCO₂e/yr) (30).

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 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

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



remain within or below the lower warming range. Rising temperatures could increase the risk of 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 CO₂ 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 (U.N.) 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 U.N. 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) (31).

On November 4, 2019, the Trump administration formally notified the U.N. that the United States would withdraw from the Paris Agreement. It should be noted that 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 United States Supreme Court (U.S. Court) found that four GHGs, including CO₂, 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— CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—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 wellmixed 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. Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (32).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy 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 mediumduty (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 CO₂ per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO₂ level solely through fuel economy improvements. Together, these standards would cut CO₂ 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 CO₂ 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 CO₂ 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% 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 CO₂ emissions from the 2014 to 2018 model years.



On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (33). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. 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 Corporate Average Fuel Economy (CAFE) and tailpipe CO₂ 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 CO₂ emissions standards by 1.5% each year through model year 2026 (34).

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 CO₂ for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an outputbased standard of 1,000 pounds (lbs) of CO₂ per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016 the U.S. 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 CO₂ standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable 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 N₂O 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 CO₂ emissions from power plants, auctions CO₂ 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 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) 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. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32, requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

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 (35):

- 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 the 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

2.7.3.1 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.

AB 32

The California State Legislature enacted AB 32, which required that GHGs emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met⁵). GHGs as defined under AB 32 include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The CARB is the state agency charged with monitoring and regulating sources of GHGs. 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."

SB 32

On September 8, 2016, Governor Jerry Brown signed the 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 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 (36).

CARB SCOPING PLAN UPDATE

In November 2017, CARB released the *Final 2017 Scoping Plan Update*, which identifies the State's post-2020 reduction strategy. The *Final 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 CH₄ emissions from agricultural and other wastes.

The *Final 2017 Scoping Plan Update* establishes a new emissions limit of 260 MMTCO₂e for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (37).

⁵ 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 MMTCO₂e (60). This is less than the 2020 emissions target of 431 MMTCO₂e.



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 (CH₄, 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 *Final 2017 Scoping Plan Update* 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 CH₄ 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 *Final 2017 Scoping Plan Update* 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 *Final 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 CO₂e (MTCO₂e) or less per capita by 2030 and 2 MTCO₂e 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, 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 by 2030, emissions could range from 211 to 428 MTCO₂e per year (MTCO₂e/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 achieving a 40% reduction in GHG emissions from 1990 levels by 2030. 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. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. 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 MTCO₂e/yr must comply with the Cap-and-Trade Program. Triggering of the 25.000 MTCO₂e/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" for each MTCO₂e 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 (40).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. 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 to the Climate Change Scoping Plan*:

"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." (41)

The Cap-and-Trade Program covered approximately 80% of California's GHG emissions (37). 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. 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 SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008 (SB 375)

Passing the Senate on August 30, 2008, 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.

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 the 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 EVs (EV) 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.

CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

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 EV 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 Utilities 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.

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 B-55-18

Executive Order B-55-18 was signed by Governor Brown on September 10, 2018. The order establishes an additional Statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

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.

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. The 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.

In 2018, the CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (42).

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 U.N. 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 express the 2030 target in terms of MMTCO₂e. 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.



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

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020.

The CEC indicates that 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, update indoor and outdoor lighting for nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades (43).

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, 2011, and is administered by the California Building Standards Commission (BSC). CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that have become effective on 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 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 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. 2019 CALGreen standards are applicable to the Project and require (44):

- 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. 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).
- 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 phase 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 note 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 (5.303.3.4.2).



- 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 gal/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. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed 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 lbs 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 dryvan 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 Greenhouse Gas 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 (MY) 2014 with stringency levels increasing through MY 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 vehicle miles traveled (VMT) growth and keep heavy-duty truck CO₂ 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 (45).



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 15064.3 was added the CEQA Guidelines and states 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 (46).

CALIFORNIA RPS PROGRAM (SB 100)

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 (kWh) 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.

2.7.4 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 (47). 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:
 - \circ ~ Residential and Commercial land use: 3,000 MTCO_2e/yr ~
 - Industrial land use: 10,000 MTCO₂e/yr
 - Based on land use type: residential: 3,500 MTCO₂e/yr; commercial: 1,400 MTCO₂e/yr; or mixed use: 3,000 MTCO₂e/yr
- Tier 4 has the following options:



- Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
- o Option 2: Early implementation of applicable AB 32 Scoping Plan measures
- Option 3: 2020 target for service populations, which includes residents and employees: 4.8 MTCO₂e per service population per year for projects and 6.6 MTCO₂e per service population per year for plans;
- Option 3, 2035 target: 3.0 MTCO₂e per service population per year for projects and 4.1 MTCO₂e per service population per 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 CO₂ 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 global warming potentials.
- 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 CAP

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 MT CO2e below the ABAU⁶ scenario by 2030 and at least 2,982,948 MT CO2e below the ABAU scenario by 2050 (CAP Update, p.7-1)

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



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 lessthan-significant.

2.8 THRESHOLDS OF SIGNIFICANCE

The CAP Update identifies a two-step approach in evaluating GHG emissions. First, a screening threshold of 3,000 MTCO₂e/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 MTCO₂e/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.

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.



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3 PROJECT GREENHOUSE GAS 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 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (1):

- 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 MODELS EMPLOYED TO ANALYZE GHGS

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

On October 17, 2017, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (48). 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 3.4. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

3.3.2 EMFAC2017 EMISSION RATES

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in SIP 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 (49). 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* (50).

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (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 (51). 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 (52). 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

Project construction activities would generate CO₂ and CH₄ emissions The report *Glen Ivy Senior Community Air Quality Impact Analysis Report* (Urban Crossroads, Inc.) contains detailed information regarding Project construction activities (53). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

3.5.1 CONSTRUCTION DURATION

Construction is expected to commence in January 2023 and will last through December 2023. The construction schedule utilized in the analysis, shown in Table 3-1, represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.⁷ The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required

⁷ As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.



per *CEQA Guidelines* (54). The duration of construction activity was based on the 2023 opening year and information provided by the Project Applicant.

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2023	01/13/2023	10
Grading	01/14/2023	02/10/2023	20
Building Construction	02/11/2023	12/29/2023	230
Paving	12/02/2023	12/29/2023	20
Architectural Coating	11/05/2023	12/29/2023	40

TABLE 3-1: CONSTRUCTION DURATION

Source: Construction activity based the 2023 opening year and CalEEMod defaults.

3.5.2 CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 3-2 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. It should be noted that most pieces of equipment would likely operate for fewer hours per day. A summary of construction equipment assumptions by phase is provided at Table 3-2.

Phase Name	Equipment ^A	Amount	Hours Per Day
	Crawler Tractors	4	8
Site Preparation	Rubber Tired Dozers	3	8
	Water Trucks	1	4
	Crawler Tractors	2	8
	Excavators	2	8
Cue dia e	Graders	1	8
Grading	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Water Trucks	1	4
	Cranes	1	8
	Forklifts	3	8
Building Construction	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
	Water Trucks	1	4

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)



Phase Name	Equipment ^A	Amount	Hours Per Day
	Pavers	2	8
Devine	Paving Equipment	2	8
Paving	Rollers	2	8
	Water Trucks	1	8
Architectural Coating	Air Compressors	1	8

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)

^A As Water Trucks are driven on-road, emissions associated with the operations of Water Trucks have been modeled as additional trips (two 2-way trips per Water Truck).

3.5.3 PROJECT CONSTRUCTION EMISSIONS SUMMARY

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 (55). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions are presented in Table 3-3.

TABLE 3-3: PROJECT AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)			
	CO2	CH4	N ₂ O	Total CO ₂ e ¹
2023	957.69	0.13	0.00	960.86
Total	957.69	0.13	0.00	960.86
Amortized Construction Emissions (MTCO ₂ e)	31.92	0.00	0.00	32.03

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO₂, CH₄, and N₂O from the following primary sources:

- Area Source Emissions
- Energy Use Emissions
- Mobile Source 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 CO₂ 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 lighting⁸. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. It should be noted that for the industrial components of the proposed Project, CalEEMod default parameters were used.

TITLE 24 ENERGY EFFICIENCY STANDARDS

California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. The CEC anticipates that residential buildings will use approximately 53% less energy compared to the prior code (43). The CalEEMod defaults for Title 24 – Electricity and Lighting Energy were reduced by 53% in order to reflect consistency with the 2019 Title 24 standard.

3.6.3 MOBILE SOURCE EMISSIONS

The Project related GHG emissions derive primarily from vehicle trips generated by the Project, including employee and driver trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the TA report were utilized in this analysis. Per the TA, the Project would generate a total of approximately 712 two-way vehicular trips per day (356 trips inbound and 356 trips outbound) (13).

3.6.4 SOLID WASTE

The proposed land uses will result in the generation and disposal of solid waste. A percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of

⁸ 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.



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.

3.6.5 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. CalEEMod default parameters were used to estimate GHG emissions associated with water supply, treatment and distribution for the Project scenario.

3.7 Emissions Summary

The annual GHG emissions associated with the operation of the proposed Project are estimated to be 1,618.85 MTCO₂e/yr as summarized in Table 3-4.

Emission Source	Emissions (MT/yr)			
	CO2	CH4	N ₂ O	Total CO₂e
Annual construction-related emissions amortized over 30 years	31.92	0.00	0.00	32.03
Area Source	56.54	4.60E-03	9.70E-04	56.95
Energy Source	373.18	0.01	4.52E-03	374.84
Mobile Source	959.18	0.04	0.00	960.09
Waste	33.77	2.00	0.00	83.66
Water Usage	96.00	0.47	0.01	111.29
Total CO₂e (All Sources)	1,618.85			

TABLE 3-4: PROJECT GHG EMISSIONS

Source: CalEEMod model output, See Appendices 3.1 through 3.2 for detailed model outputs.

3.8 GREENHOUSE GAS EMISSIONS FINDINGS AND RECOMMENDATIONS

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 MTCO₂e/yr is used to determine if additional analysis is required. Projects that exceed the 3,000 MTCO₂e/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 3-4, the Project will result in approximately 1,618.85 MTCO₂e/yr; the proposed project would not exceed the County's screening threshold of 3,000 MTCO₂e/yr. Thus, project-related emissions would not have a significant direct or indirect impact on GHG and climate change and would not require additional analysis.

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 (56). Project consistency with SB 32 and the County's CAP is evaluated in the following discussion.

CONSISTENCY WITH SB 32 (2017 SCOPING PLAN UPDATE)

In November 2017, CARB released the *Final 2017 Scoping Plan Update*, which identifies the State's post-2020 reduction strategy. As the Project buildout is anticipated to occur in 2022, consistency with SB 32 is discussed below.

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 3-8 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.

Action	Responsible Parties	Consistency		
Implement SB 350 by 2030				
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.		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.	CPUC, CEC, CARB	Consistent. Although this measure is directed towards policymakers, the proposed Project would be designed consistent with CAP measure R2-CE1, which would generate on-site renewable energy of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for Community Care Facility development, and meet or exceed 30% of energy demand for single-family residential development.		
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. Although this measure is directed towards policymakers, the proposed Project would be designed consistent with CAP measure R2-CE1, which would generate on-site renewable energy of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for Community Care Facility development, and meet or exceed 30% of energy demand for single-family residential development.		
Implement Mobile Source Strategy (Cleaner Technology and Fuels)				
At least 1.5 million zero emission and plug- in hybrid light-duty EV by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.		

TABLE 3-4: 2017 SCOPING PLAN CONSISTENCY SUMMARY⁹

⁹ Measures can be found at the following link: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf



Action	Responsible Parties	Consistency
At least 4.2 million zero emission and plug- in hybrid light-duty EV by 2030.	Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
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. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
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. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% 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 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% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% 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.



Action	Responsible Parties	Consistency
Further reduce vehicle miles traveled (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. Based on the <i>Glen Ivy Senior</i> <i>Community Vehicle Miles Traveled (VMT)</i> <i>Analysis</i> , the Project would not exceed the County threshold of 15.2 VMT per capital and, therefore, the potential impact to VMT would be less than significant (57).
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).
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. Although this is directed towards CARB and Caltrans, the proposed Project would be designed to promote and support pedestrian activity on-site and in the Project Site area. The proposed Project includes the construction of sidewalks and incorporates bicycle facilities that would facilitate pedestrian and bicycle travel. Additionally, the study area is currently served by the Riverside Transit Authority, a public transit agency serving various jurisdictions within the unincorporated Riverside County region. There are currently no existing bus routes that serve the roadways within the study area in close proximity to the proposed Project. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the Project Applicant work in conjunction with RTA to potentially accommodate bus service to the site (13).
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,	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low- GHG transportation.

Action	Responsible Parties	Consistency
	SGC, CARB	
Implement California Sustainable Freight Ac	tion Plan	
		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. Access to the Project site would be provided via the following driveways: Driveway 1 & Trilogy Parkway, Driveway 2 & Trilogy Parkway (Right-in/right-out
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	access only), Temescal Canyon Road & Driveway 3 (Right-in/right-out access only), Temescal Canyon Road & Driveway 4 (evaluated both with right-in/right-out access only and full access). Regional access to the Project site is available from the I-15 Freeway via Temescal Canyon Road approximately 0.40 mile east of the Project site. The proposed Project includes various roadway improvements, as detailed in the TA which would accommodate access to the Project site (58).
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		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 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%.	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%.
Implement the Short-Lived Climate Pollutan	t Strategy (SLPS) by 203	30
40% 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



Action	Responsible Parties	Consistency
50% reduction in black carbon emissions below 2013 levels.		obstruct or interfere agency efforts to reduce SLPS emissions.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP 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 SLCP 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 Wo as a net carbon sink	orking Lands Implemen	tation Plan to secure California's land base
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CaIEPA, CARB	Consistent. 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 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.



Action	Responsible Parties	Consistency
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 Within	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.

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 (59).

COUNTY OF RIVERSIDE CAP CONSISTENCY

The County of Riverside adopted the CAP in December 8, 2015. The CAP 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.

As previously stated, the Project will result in approximately 1,618.85 MTCO₂e/yr; the proposed Project would not exceed the County's screening threshold of 3,000 MTCO₂e/yr. Thus, project-related emissions would not have a significant direct or indirect impact on GHG and climate change and would not require additional analysis. Overall, the proposed Project would not conflict with the County's CAP and impacts would be less than significant. No mitigation measures are necessary.

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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 Glen Ivy Senior Community. 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 <u>hqureshi@urbanxroads.com</u>.

Haseeb Qureshi Associate Principal Urban Crossroads, Inc. hqureshi@urbanxroads.com

EDUCATION

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

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

PROFESSIONAL AFFILIATIONS

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

PROFESSIONAL CERTIFICATIONS

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



APPENDIX 3.1:

CALEEMOD PROJECT ANNUAL CONSTRUCTION EMISSIONS MODEL OUTPUTS



Glen Ivy Senior Community (Construction)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	110.36	1000sqft	2.53	110,356.00	0
Parking Lot	210.00	Space	1.93	84,000.00	0
Congregate Care (Assisted Living)	144.00	Dwelling Unit	3.63	157,905.16	412
Retirement Community	76.00	Dwelling Unit	1.91	83,338.84	217

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

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Glen Ivy Senior Community (Construction) - Riverside-South Coast County, Annual

Project Characteristics -

Land Use - Total Project Area is 10 acres.

Construction Phase - Construction anticipated to start in January 2023. Number of days for each phase has been approved by the Project Applicant.

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

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

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

Off-road Equipment -

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

Trips and VMT - Emissinos associated with the operations of Water Trucks have been modeled as additional trips and VMT and not as actual equipment.

Grading - It is assumed that the entire Project Site (10 acres) will be disturbed per day.

Vehicle Trips - Construction Run Only.

Woodstoves - Construction Run Only.

Energy Use - Construction Run Only.

Water And Wastewater - Construction Run Only.

Solid Waste - Construction Run Only.

Construction Off-road Equipment Mitigation - Rule 403

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Table Name	Column Name	Default Value	New Value
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tblEnergyUse	NT24NG	6,030.00	0.00
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tblFireplaces	FireplaceHourDay	3.00	0.00
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tblFireplaces	FireplaceWoodMass	1,019.20	0.00
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tblFireplaces	NumberWood	7.20	0.00
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tblGrading	AcresOfGrading	20.00	100.00
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tblLandUse	LandUseSquareFeet	76,000.00	83,338.84
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tblLandUse	LotAcreage	9.00	3.63
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
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tblTripsAndVMT	VendorTripNumber	0.00	2.00
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tblVehicleEF	LDT1	0.04	0.04
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tblVehicleEF	LDT1	0.18	0.34
tblVehicleEF	LDT1	8.9360e-003	5.6560e-003
tblVehicleEF	LDT1	0.01	0.07
tblVehicleEF	LDT1	1.11	1.18
tblVehicleEF	LDT1	2.78	2.26
tblVehicleEF	LDT1	287.77	295.29
tblVehicleEF	LDT1	68.37	63.68
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.17	0.26
tblVehicleEF	LDT1	2.2770e-003	1.8930e-003
tblVehicleEF	LDT1	3.3510e-003	2.5560e-003
tblVehicleEF	LDT1	2.0960e-003	1.7420e-003
tblVehicleEF	LDT1	3.0820e-003	2.3500e-003
tblVehicleEF	LDT1	0.16	0.16

tblVehicleEF	LDT1	0.33	0.26
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.21	0.86
tblVehicleEF	LDT1	0.19	0.36
tblVehicleEF	LDT1	2.8910e-003	2.8860e-003
tblVehicleEF	LDT1	7.3200e-004	6.2200e-004
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.33	0.26
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.21	0.86
tblVehicleEF	LDT1	0.21	0.40
tblVehicleEF	LDT2	4.7540e-003	3.1840e-003
tblVehicleEF	LDT2	5.7630e-003	0.06
tblVehicleEF	LDT2	0.68	0.79
tblVehicleEF	LDT2	1.27	2.59
tblVehicleEF	LDT2	330.23	314.22
tblVehicleEF	LDT2	76.02	67.26
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.26
tblVehicleEF	LDT2	1.6020e-003	1.3480e-003
tblVehicleEF	LDT2	2.3660e-003	1.7950e-003
tblVehicleEF	LDT2	1.4730e-003	1.2410e-003
tblVehicleEF	LDT2	2.1760e-003	1.6510e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.10	0.12

tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.39
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.3070e-003	3.0700e-003
tblVehicleEF	LDT2	7.8100e-004	6.5700e-004
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.39
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LDT2	5.3890e-003	3.5750e-003
tblVehicleEF	LDT2	5.0030e-003	0.05
tblVehicleEF	LDT2	0.83	0.94
tblVehicleEF	LDT2	1.13	2.16
tblVehicleEF	LDT2	359.32	334.38
tblVehicleEF	LDT2	76.02	66.44
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.24
tblVehicleEF	LDT2	1.6020e-003	1.3480e-003
tblVehicleEF	LDT2	2.3660e-003	1.7950e-003
tblVehicleEF	LDT2	1.4730e-003	1.2410e-003
tblVehicleEF	LDT2	2.1760e-003	1.6510e-003
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.10	0.13

tblVehicleEFLDT2tblVehicleEFLDT2tblVehicleEFLDT2tblVehicleEFLDT2tblVehicleEFLDT2tblVehicleEFLDT2tblVehicleEFLDT2	0.06 0.07 3.6000e-003 7.7900e-004 0.12 0.12	0.39 0.24 3.2670e-003 6.4900e-004 0.15 0.14
tblVehicleEF LDT2 tblVehicleEF LDT2	3.6000e-003 7.7900e-004 0.12 0.12	3.2670e-003 6.4900e-004 0.15
tblVehicleEF LDT2	7.7900e-004 0.12 0.12	6.4900e-004 0.15
tblVehicleEF LDT2	7.7900e-004 0.12 0.12	6.4900e-004 0.15
tblVehicleEF LDT2	0.12	
L		0 14
tblVehicleEF LDT2		• •••
tblVehicleEF LDT2	0.10	0.13
tblVehicleEF LDT2	0.02	0.02
tblVehicleEF LDT2	0.06	0.39
tblVehicleEF LDT2	0.07	0.27
tblVehicleEF LDT2	4.5710e-003	3.1320e-003
tblVehicleEF LDT2	5.9350e-003	0.06
tblVehicleEF LDT2	0.63	0.76
tblVehicleEF LDT2	1.30	2.57
tblVehicleEF LDT2	321.50	310.81
tblVehicleEF LDT2	76.02	67.23
tblVehicleEF LDT2	0.06	0.06
tblVehicleEF LDT2	0.10	0.25
tblVehicleEF LDT2	1.6020e-003	1.3480e-003
tblVehicleEF LDT2	2.3660e-003	1.7950e-003
tblVehicleEF LDT2	1.4730e-003	1.2410e-003
tblVehicleEF LDT2	2.1760e-003	1.6510e-003
tblVehicleEF LDT2	0.05	0.08
tblVehicleEF LDT2	0.11	0.13
tblVehicleEF LDT2	0.04	0.07
tblVehicleEF LDT2	0.01	0.01

tblVehicleEF tblVehicleEF tblVehicleEF	LDT2 LDT2 LDT2	0.07 0.08	0.46 0.28
l			0.20
tblvehicleEF	LD12	0.0400.000	+
		3.2190e-003	3.0370e-003
tblVehicleEF	LDT2	7.8200e-004	6.5700e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.46
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	4.9950e-003	4.5410e-003
tblVehicleEF	LHD1	8.5970e-003	4.4200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.81	0.60
tblVehicleEF	LHD1	2.14	0.89
tblVehicleEF	LHD1	9.25	9.36
tblVehicleEF	LHD1	596.36	619.96
tblVehicleEF	LHD1	29.33	9.99
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.91	1.39
tblVehicleEF	LHD1	0.93	0.28
tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF	LHD1	9.2400e-004	9.6900e-004

tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF	LHD1	0.01	9.8330e-003
tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF	LHD1	3.6750e-003	2.3920e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8430e-003	1.2620e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.31	0.44
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3400e-004	9.9000e-005
tblVehicleEF	LHD1	3.6750e-003	2.3920e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8430e-003	1.2620e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.31	0.44
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	4.9950e-003	4.5540e-003
tblVehicleEF	LHD1	8.7610e-003	4.4900e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.82	0.61
tblVehicleEF	LHD1	2.04	0.84
tblVehicleEF	LHD1	9.25	9.36

tblVehicleEF	LHD1	596.36	619.98
tblVehicleEF	LHD1	29.33	9.91
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.80	1.31
tblVehicleEF	LHD1	0.90	0.27
tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF	LHD1	9.2400e-004	9.6900e-004
tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF	LHD1	0.01	9.8330e-003
tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF	LHD1	6.8550e-003	4.2440e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4810e-003	2.4050e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.32	0.44
tblVehicleEF	LHD1	0.22	0.06
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3200e-004	9.8000e-005
tblVehicleEF	LHD1	6.8550e-003	4.2440e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.4810e-003	2.4050e-003

tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	0.32	0.44
tblVehicleEF	LHD1	0.24	0.07
tblVehicleEF	LHD1	4.9950e-003	4.5430e-003
tblVehicleEF	LHD1	8.5850e-003	4.4280e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.81	0.60
tblVehicleEF	LHD1	2.14	0.88
tblVehicleEF	LHD1	9.25	9.36
tblVehicleEF	LHD1	596.36	619.96
tblVehicleEF	LHD1	29.33	9.98
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.89	1.37
tblVehicleEF	LHD1	0.92	0.28
tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF	LHD1	9.2400e-004	9.6900e-004
tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF	LHD1	0.01	9.8330e-003
tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF	LHD1	3.2380e-003	2.4970e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6810e-003	1.3210e-003

tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.33	0.47
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3400e-004	9.9000e-005
tblVehicleEF	LHD1	3.2380e-003	2.4970e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6810e-003	1.3210e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.33	0.47
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD2	3.3070e-003	2.7700e-003
tblVehicleEF	LHD2	3.5370e-003	3.2640e-003
tblVehicleEF	LHD2	6.6670e-003	7.1780e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.48
tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.92
tblVehicleEF	LHD2	22.93	6.42
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.29	1.52
tblVehicleEF	LHD2	0.46	0.16
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005
tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	1.3090e-003	1.1190e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.0300e-004	6.1300e-004
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.19
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	1.4000e-004	1.4200e-004
tblVehicleEF	LHD2	5.7620e-003	5.9160e-003
tblVehicleEF	LHD2	2.4800e-004	6.4000e-005
tblVehicleEF	LHD2	1.3090e-003	1.1190e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.0300e-004	6.1300e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.19
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	2.7770e-003
tblVehicleEF	LHD2	3.5730e-003	3.2860e-003
tblVehicleEF	LHD2	6.4430e-003	6.9030e-003
tblVehicleEF	LHD2	0.12	0.13
			1

	11100	0.40	0.45
tblVehicleEF	LHD2	0.40	0.45
tblVehicleEF	LHD2	0.98	0.45
tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.93
tblVehicleEF	LHD2	22.93	6.38
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.22	1.43
tblVehicleEF	LHD2	0.45	0.15
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005
tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	2.4680e-003	1.9920e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.3130e-003	1.1680e-003
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.20
tblVehicleEF	LHD2	0.09	0.03
tblVehicleEF	LHD2	1.4000e-004	1.4200e-004
tblVehicleEF	LHD2	5.7620e-003	5.9160e-003
tblVehicleEF	LHD2	2.4700e-004	6.3000e-005
tblVehicleEF	LHD2	2.4680e-003	1.9920e-003

tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.3130e-003	1.1680e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.20
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	2.7710e-003
tblVehicleEF	LHD2	3.5300e-003	3.2670e-003
tblVehicleEF	LHD2	6.7050e-003	7.1290e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.47
tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.92
tblVehicleEF	LHD2	22.93	6.42
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.28	1.49
tblVehicleEF	LHD2	0.46	0.16
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005
tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	1.0230e-003	1.1350e-003

tblVehicleEF LHD2 0.05 tblVehicleEF LHD2 0.08 tblVehicleEF LHD2 0.09 tblVehicleEF LHD2 1.4000e-004 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	0.04 0.01 5500e-004 0.06 0.21 0.03 1200e-004 1160e-003 5000e-005 350e-003
tblVehicleEF LHD2 5.9800e-004 6.3 tblVehicleEF LHD2 0.05 6.3 tblVehicleEF LHD2 0.08 6.3 tblVehicleEF LHD2 0.09 6.3 tblVehicleEF LHD2 0.09 6.3 tblVehicleEF LHD2 0.09 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	500e-004 0.06 0.21 0.03 200e-004 160e-003 3000e-005 350e-003
tblVehicleEF LHD2 0.05 tblVehicleEF LHD2 0.08 tblVehicleEF LHD2 0.09 tblVehicleEF LHD2 1.4000e-004 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	0.06 0.21 0.03 200e-004 1160e-003 2000e-005 350e-003
tblVehicleEF LHD2 0.08 tblVehicleEF LHD2 0.09 tblVehicleEF LHD2 1.4000e-004 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	0.21 0.03 200e-004 1160e-003 3000e-005 350e-003
tblVehicleEF LHD2 0.09 tblVehicleEF LHD2 1.4000e-004 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	0.03 200e-004 1160e-003 3000e-005 350e-003
tblVehicleEF LHD2 1.4000e-004 1.4 tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	200e-004 160e-003 1000e-005 350e-003
tblVehicleEF LHD2 5.7620e-003 5.9 tblVehicleEF LHD2 2.4800e-004 6.3	160e-003 1000e-005 350e-003
tblVehicleEF LHD2 2.4800e-004 6.3	0000e-005 350e-003
↓	350e-003
tblVehicleEF LHD2 1.0230e-003 1.1	
tblVehicleEF LHD2 0.04	0.04
tblVehicleEF LHD2 0.02	0.02
tblVehicleEF LHD2 5.9800e-004 6.3	500e-004
tblVehicleEF LHD2 0.06	0.06
tblVehicleEF LHD2 0.08	0.21
tblVehicleEF LHD2 0.10	0.04
tblVehicleEF MCY 0.43	0.31
tblVehicleEF MCY 0.15	0.24
tblVehicleEF MCY 18.81	18.85
tblVehicleEF MCY 9.70	8.64
tblVehicleEF MCY 166.71	207.60
tblVehicleEF MCY 45.36	60.36
tblVehicleEF MCY 1.12	1.13
tblVehicleEF MCY 0.31	0.26
tblVehicleEF MCY 1.8630e-003 1.7	′970e-003
tblVehicleEF MCY 3.2830e-003 2.7	750e-003
tblVehicleEF MCY 1.7410e-003 1.6	800e-003

tblVehicleEF	MCY	3.0870e-003	2.6090e-003
tblVehicleEF	МСҮ	1.69	1.43
tblVehicleEF	MCY	0.83	0.79
tblVehicleEF	МСҮ	0.92	0.76
tblVehicleEF	МСҮ	2.11	2.11
tblVehicleEF	МСҮ	0.55	1.77
tblVehicleEF	MCY	2.05	1.83
tblVehicleEF	МСҮ	2.0360e-003	2.0540e-003
tblVehicleEF	MCY	6.7200e-004	5.9700e-004
tblVehicleEF	МСҮ	1.69	1.43
tblVehicleEF	МСҮ	0.83	0.79
tblVehicleEF	МСҮ	0.92	0.76
tblVehicleEF	МСҮ	2.61	2.61
tblVehicleEF	МСҮ	0.55	1.77
tblVehicleEF	MCY	2.23	2.00
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	МСҮ	0.13	0.21
tblVehicleEF	МСҮ	19.51	18.83
tblVehicleEF	МСҮ	9.10	7.90
tblVehicleEF	МСҮ	166.71	207.41
tblVehicleEF	МСҮ	45.36	58.44
tblVehicleEF	МСҮ	0.97	0.97
tblVehicleEF	МСҮ	0.29	0.25
tblVehicleEF	МСҮ	1.8630e-003	1.7970e-003
tblVehicleEF	МСҮ	3.2830e-003	2.7750e-003
tblVehicleEF	МСҮ	1.7410e-003	1.6800e-003
tblVehicleEF	МСҮ	3.0870e-003	2.6090e-003

tblVehicleEF	MCY	3.35	2.75
tblVehicleEF	МСҮ	1.23	1.09
tblVehicleEF	MCY	2.09	1.72
tblVehicleEF	МСҮ	2.09	2.07
tblVehicleEF	МСҮ	0.55	1.74
tblVehicleEF	МСҮ	1.84	1.61
tblVehicleEF	МСҮ	2.0460e-003	2.0530e-003
tblVehicleEF	МСҮ	6.5600e-004	5.7800e-004
tblVehicleEF	МСҮ	3.35	2.75
tblVehicleEF	МСҮ	1.23	1.09
tblVehicleEF	МСҮ	2.09	1.72
tblVehicleEF	МСҮ	2.59	2.56
tblVehicleEF	МСҮ	0.55	1.74
tblVehicleEF	МСҮ	2.00	1.75
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	MCY	18.37	18.30
tblVehicleEF	MCY	9.67	8.43
tblVehicleEF	MCY	166.71	206.64
tblVehicleEF	MCY	45.36	59.88
tblVehicleEF	MCY	1.12	1.09
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	1.8630e-003	1.7970e-003
tblVehicleEF	MCY	3.2830e-003	2.7750e-003
tblVehicleEF	MCY	1.7410e-003	1.6800e-003
tblVehicleEF	МСҮ	3.0870e-003	2.6090e-003
tblVehicleEF	МСҮ	1.59	1.64
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tblVehicleEF	MCY	1.02	1.05
tblVehicleEF	МСҮ	0.73	0.76
tblVehicleEF	MCY	2.11	2.09
tblVehicleEF	МСҮ	0.63	2.02
tblVehicleEF	МСҮ	2.06	1.79
tblVehicleEF	МСҮ	2.0290e-003	2.0450e-003
tblVehicleEF	МСҮ	6.7200e-004	5.9300e-004
tblVehicleEF	МСҮ	1.59	1.64
tblVehicleEF	МСҮ	1.02	1.05
tblVehicleEF	МСҮ	0.73	0.76
tblVehicleEF	МСҮ	2.61	2.59
tblVehicleEF	МСҮ	0.63	2.02
tblVehicleEF	МСҮ	2.24	1.95
tblVehicleEF	MDV	9.8990e-003	4.1640e-003
tblVehicleEF	MDV	0.01	0.08
tblVehicleEF	MDV	1.15	0.92
tblVehicleEF	MDV	2.62	2.99
tblVehicleEF	MDV	458.82	396.16
tblVehicleEF	MDV	104.21	84.06
tblVehicleEF	MDV	0.13	0.09
tblVehicleEF	MDV	0.25	0.33
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.19	0.15

tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.11	0.46
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MDV	4.5960e-003	3.8690e-003
tblVehicleEF	MDV	1.0880e-003	8.2200e-004
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.19	0.15
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.11	0.46
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	0.01	4.6800e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	1.41	1.09
tblVehicleEF	MDV	2.31	2.49
tblVehicleEF	MDV	498.05	417.66
tblVehicleEF	MDV	104.21	83.09
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.24	0.31
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.22	0.17
tblVehicleEF	MDV	0.16	0.17
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tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.11	0.45
tblVehicleEF	MDV	0.17	0.32
tblVehicleEF	MDV	4.9910e-003	4.0790e-003
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tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.22	0.17
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tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.45
tblVehicleEF	MDV	0.19	0.35
tblVehicleEF	MDV	9.5100e-003	4.0920e-003
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tblVehicleEF	MDV	1.08	0.88
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tblVehicleEF	MDV	447.05	392.53
tblVehicleEF	MDV	104.21	84.03
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.25	0.33
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.20	0.16
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.02	0.02

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tblVehicleEF	MDV	0.20	0.38
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tblVehicleEF	MDV	0.20	0.16
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tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	1.38	0.00
tblVehicleEF	МН	0.08	0.00
tblVehicleEF	МН	0.49	0.00
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tblVehicleEF	МН	0.07	0.07
tblVehicleEF	МН	0.02	0.00
tblVehicleEF	МН	0.31	0.00
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tblVehicleEF	МН	6.6300e-004	0.00
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tblVehicleEF	МН	0.04	0.13
tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	2.52	0.00
tblVehicleEF	МН	0.09	0.00
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tblVehicleEF	МН	0.94	0.00
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tblVehicleEF	МН	0.02	0.00
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tblVehicleEF	МН	6.5700e-004	0.00
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tblVehicleEF	МН	0.02	0.00
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tblVehicleEF	МН	0.79	0.00
tblVehicleEF	МН	0.01	0.02
tblVehicleEF	МН	0.04	0.14
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tblVehicleEF	МН	0.04	0.13
tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	1.38	0.00
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tblVehicleEF	МН	0.47	0.00
tblVehicleEF	МН	0.07	0.07
tblVehicleEF	МН	0.03	0.00
tblVehicleEF	МН	0.31	0.00
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tblVehicleEF	МН	6.6300e-004	0.00
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tblVehicleEF	MHD	2.6660e-003	9.4670e-003

tblVehicleEF tblVehicleEF	MHD	7.3000e-004	8.3000e-005
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I	MHD	1.2900e-004	4.1500e-004
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tblVehicleEF	MHD	6.7100e-004	7.6000e-005
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tblVehicleEF	MHD	0.02	0.02
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tblVehicleEF	MHD	0.02	0.07
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tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	7.6500e-004	2.2800e-004
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tblVehicleEF	MHD	0.02	0.07
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tblVehicleEF	MHD	0.21	0.12
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tblVehicleEF	MHD	1.1400e-004	3.6900e-004
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tblVehicleEF	MHD	7.3000e-004	8.3000e-005
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tblVehicleEF	MHD	1.4710e-003	4.4600e-004
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tblVehicleEF	MHD	0.02	0.07
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tblVehicleEF	MHD	0.02	0.02
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tblVehicleEF	MHD	0.31	0.04
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tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	5.9600e-004	2.3900e-004
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tblVehicleEF	OBUS	0.39	0.70
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tblVehicleEF	OBUS	1.2000e-005	7.5000e-005
tblVehicleEF	OBUS	1.9500e-003	8.4680e-003
tblVehicleEF	OBUS	8.7100e-004	2.1800e-004
tblVehicleEF	OBUS	1.1000e-005	7.2000e-005
tblVehicleEF	OBUS	1.8490e-003	8.0880e-003

tblVehicleEF	OBUS	8.0000e-004	2.0100e-004
tblVehicleEF	OBUS	2.0910e-003	2.6670e-003
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tblVehicleEF	OBUS	0.03	0.05
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tblVehicleEF	OBUS	0.04	0.06
tblVehicleEF	OBUS	1.7290e-003	2.2650e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.29
tblVehicleEF	OBUS	0.36	0.13
tblVehicleEF	OBUS	0.01	8.4630e-003

tblVehicleEF	OBUS	5.6610e-003	5.4160e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.25	0.49
tblVehicleEF	OBUS	0.39	0.70
tblVehicleEF	OBUS	5.57	2.67
tblVehicleEF	OBUS	64.36	65.29
tblVehicleEF	OBUS	1,085.33	1,335.50
tblVehicleEF	OBUS	69.49	21.26
tblVehicleEF	OBUS	0.13	0.24
tblVehicleEF	OBUS	0.35	0.89
tblVehicleEF	OBUS	2.06	0.68
tblVehicleEF	OBUS	1.5000e-005	8.7000e-005
tblVehicleEF	OBUS	1.9500e-003	8.4680e-003
tblVehicleEF	OBUS	8.7100e-004	2.1800e-004
tblVehicleEF	OBUS	1.4000e-005	8.3000e-005
tblVehicleEF	OBUS	1.8490e-003	8.0880e-003
tblVehicleEF	OBUS	8.0000e-004	2.0100e-004
tblVehicleEF	OBUS	1.7990e-003	2.7830e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	8.3400e-004	1.2510e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.31
tblVehicleEF	OBUS	0.35	0.13
tblVehicleEF	OBUS	6.2600e-004	6.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.9300e-004	2.1000e-004

tblVehicleEF	OBUS	1.7990e-003	2.7830e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	8.3400e-004	1.2510e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.31
tblVehicleEF	OBUS	0.38	0.14
tblVehicleEF	SBUS	0.82	0.09
tblVehicleEF	SBUS	9.5650e-003	6.6030e-003
tblVehicleEF	SBUS	0.06	8.0990e-003
tblVehicleEF	SBUS	7.84	3.43
tblVehicleEF	SBUS	0.57	0.55
tblVehicleEF	SBUS	6.44	1.08
tblVehicleEF	SBUS	1,128.57	369.74
tblVehicleEF	SBUS	1,093.03	1,096.55
tblVehicleEF	SBUS	55.12	6.92
tblVehicleEF	SBUS	8.81	3.32
tblVehicleEF	SBUS	3.97	4.42
tblVehicleEF	SBUS	12.20	0.78
tblVehicleEF	SBUS	8.4250e-003	3.3040e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005
tblVehicleEF	SBUS	8.0610e-003	3.1610e-003
tblVehicleEF	SBUS	2.6870e-003	2.6500e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005

tblVehicleEF	SBUS	5.0680e-003	1.5760e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	0.93	0.41
tblVehicleEF	SBUS	2.4310e-003	7.9200e-004
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.36	0.05
tblVehicleEF	SBUS	0.01	3.5360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6300e-004	6.9000e-005
tblVehicleEF	SBUS	5.0680e-003	1.5760e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.34	0.59
tblVehicleEF	SBUS	2.4310e-003	7.9200e-004
tblVehicleEF	SBUS	0.12	0.11
tblVehicleEF	SBUS	0.02	0.07
tblVehicleEF	SBUS	0.39	0.05
tblVehicleEF	SBUS	0.82	0.09
tblVehicleEF	SBUS	9.7050e-003	6.6870e-003
tblVehicleEF	SBUS	0.05	6.7520e-003
tblVehicleEF	SBUS	7.74	3.39
tblVehicleEF	SBUS	0.58	0.56
tblVehicleEF	SBUS	4.67	0.77
tblVehicleEF	SBUS	1,179.47	378.98
tblVehicleEF	SBUS	1,093.03	1,096.56
tblVehicleEF	SBUS	55.12	6.42
tblVehicleEF	SBUS	9.10	3.40

			1
tblVehicleEF	SBUS	3.73	4.16
tblVehicleEF	SBUS	12.17	0.77
tblVehicleEF	SBUS	7.1020e-003	2.7930e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005
tblVehicleEF	SBUS	6.7950e-003	2.6720e-003
tblVehicleEF	SBUS	2.6870e-003	2.6500e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005
tblVehicleEF	SBUS	9.1290e-003	2.7600e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	0.92	0.41
tblVehicleEF	SBUS	4.4980e-003	1.4670e-003
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.30	0.04
tblVehicleEF	SBUS	0.01	3.6240e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.3300e-004	6.3000e-005
tblVehicleEF	SBUS	9.1290e-003	2.7600e-003
tblVehicleEF	SBUS	0.04	0.01
tblVehicleEF	SBUS	1.34	0.59
tblVehicleEF	SBUS	4.4980e-003	1.4670e-003
tblVehicleEF	SBUS	0.12	0.11
tblVehicleEF	SBUS	0.02	0.06
tblVehicleEF	SBUS	0.33	0.04
			1

tblVehicleEF	SBUS	0.82	0.09
tblVehicleEF	SBUS	9.5210e-003	6.6020e-003
tblVehicleEF	SBUS	0.06	8.2440e-003
tblVehicleEF	SBUS	8.00	3.48
tblVehicleEF	SBUS	0.57	0.55
tblVehicleEF	SBUS	6.79	1.10
tblVehicleEF	SBUS	1,058.28	356.98
tblVehicleEF	SBUS	1,093.03	1,096.55
tblVehicleEF	SBUS	55.12	6.96
tblVehicleEF	SBUS	8.43	3.21
tblVehicleEF	SBUS	3.93	4.35
tblVehicleEF	SBUS	12.21	0.78
tblVehicleEF	SBUS	0.01	4.0110e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005
tblVehicleEF	SBUS	9.8080e-003	3.8370e-003
tblVehicleEF	SBUS	2.6870e-003	2.6500e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005
tblVehicleEF	SBUS	4.3640e-003	1.4840e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	0.93	0.41
tblVehicleEF	SBUS	2.3310e-003	8.1800e-004
tblVehicleEF	SBUS	0.10	0.09
tblVehicleEF	SBUS	0.02	0.08
tblVehicleEF	SBUS	0.37	0.05

tblVehicleEF	SBUS	0.01	3.4160e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6900e-004	6.9000e-005
tblVehicleEF	SBUS	4.3640e-003	1.4840e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.34	0.59
tblVehicleEF	SBUS	2.3310e-003	8.1800e-004
tblVehicleEF	SBUS	0.12	0.11
tblVehicleEF	SBUS	0.02	0.08
tblVehicleEF	SBUS	0.40	0.05
tblVehicleEF	UBUS	1.36	3.04
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	7.52	23.60
tblVehicleEF	UBUS	13.83	1.86
tblVehicleEF	UBUS	1,788.21	1,635.62
tblVehicleEF	UBUS	153.17	22.96
tblVehicleEF	UBUS	3.79	0.30
tblVehicleEF	UBUS	12.24	0.22
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.1820e-003
tblVehicleEF	UBUS	1.4880e-003	2.2400e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003
tblVehicleEF	UBUS	0.04	2.0670e-003
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004
tblVehicleEF	UBUS	9.0420e-003	2.8050e-003

tblVehicleEF	UBUS	0.10	0.02
tblVehicleEF	UBUS	4.5390e-003	1.1470e-003
tblVehicleEF	UBUS	0.42	0.05
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.09	0.10
tblVehicleEF	UBUS	9.5090e-003	6.3200e-003
tblVehicleEF	UBUS	1.7820e-003	2.2700e-004
tblVehicleEF	UBUS	9.0420e-003	2.8050e-003
tblVehicleEF	UBUS	0.10	0.02
tblVehicleEF	UBUS	4.5390e-003	1.1470e-003
tblVehicleEF	UBUS	1.82	3.11
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.19	0.10
tblVehicleEF	UBUS	1.36	3.04
tblVehicleEF	UBUS	0.07	0.02
tblVehicleEF	UBUS	7.58	23.60
tblVehicleEF	UBUS	11.85	1.58
tblVehicleEF	UBUS	1,788.21	1,635.63
tblVehicleEF	UBUS	153.17	22.49
tblVehicleEF	UBUS	3.53	0.30
tblVehicleEF	UBUS	12.16	0.21
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.1820e-003
tblVehicleEF	UBUS	1.4880e-003	2.2400e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003

tblVehicleEF	UBUS	0.04	2.0670e-003
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004
tblVehicleEF	UBUS	0.02	4.9810e-003
tblVehicleEF	UBUS	0.13	0.02
tblVehicleEF	UBUS	9.0520e-003	2.2660e-003
tblVehicleEF	UBUS	0.43	0.05
tblVehicleEF	UBUS	0.02	0.07
tblVehicleEF	UBUS	0.99	0.09
tblVehicleEF	UBUS	9.5110e-003	6.3200e-003
tblVehicleEF	UBUS	1.7480e-003	2.2300e-004
tblVehicleEF	UBUS	0.02	4.9810e-003
tblVehicleEF	UBUS	0.13	0.02
tblVehicleEF	UBUS	9.0520e-003	2.2660e-003
tblVehicleEF	UBUS	1.83	3.11
tblVehicleEF	UBUS	0.02	0.07
tblVehicleEF	UBUS	1.09	0.09
tblVehicleEF	UBUS	1.36	3.04
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	7.51	23.60
tblVehicleEF	UBUS	14.02	1.85
tblVehicleEF	UBUS	1,788.21	1,635.62
tblVehicleEF	UBUS	153.17	22.93
tblVehicleEF	UBUS	3.75	0.30
tblVehicleEF	UBUS	12.25	0.22
tblVehicleEF	UBUS	0.49	0.09
tblVehicleEF	UBUS	0.01	0.02
tblVehicleEF	UBUS	0.04	2.1820e-003
			1

tblVehicleEF	UBUS	1.4880e-003	2.2400e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003
tblVehicleEF	UBUS	0.04	2.0670e-003
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004
tblVehicleEF	UBUS	8.1990e-003	2.8430e-003
tblVehicleEF	UBUS	0.12	0.02
tblVehicleEF	UBUS	4.1400e-003	1.2010e-003
tblVehicleEF	UBUS	0.42	0.05
tblVehicleEF	UBUS	0.03	0.09
tblVehicleEF	UBUS	1.10	0.09
tblVehicleEF	UBUS	9.5090e-003	6.3200e-003
tblVehicleEF	UBUS	1.7850e-003	2.2700e-004
tblVehicleEF	UBUS	8.1990e-003	2.8430e-003
tblVehicleEF	UBUS	0.12	0.02
tblVehicleEF	UBUS	4.1400e-003	1.2010e-003
tblVehicleEF	UBUS	1.82	3.11
tblVehicleEF	UBUS	0.03	0.09
tblVehicleEF	UBUS	1.20	0.10
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	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00

tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	ST_TR	2.20	0.00
tblVehicleTrips	ST_TR	2.03	0.00
tblVehicleTrips	SU_TR	2.44	0.00
tblVehicleTrips	SU_TR	1.95	0.00
tblVehicleTrips	WD_TR	2.74	0.00
tblVehicleTrips	WD_TR	2.40	0.00
tblWater	IndoorWaterUseRate	9,382,179.69	0.00
tblWater	IndoorWaterUseRate	4,951,705.95	0.00
tblWater	OutdoorWaterUseRate	5,914,852.41	0.00
tblWater	OutdoorWaterUseRate	3,121,727.66	0.00
tblWoodstoves	NumberCatalytic	7.20	0.00

tblWoodstoves	NumberCatalytic	3.80	0.00
tblWoodstoves	NumberNoncatalytic	7.20	0.00
tblWoodstoves	NumberNoncatalytic	3.80	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	со	SO2	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					ton	s/yr							MT	/yr		
2023	1.1821	3.3396	3.4896	0.0106	0.7134	0.1213	0.8348	0.2082	0.1135	0.3217	0.0000	957.6906	957.6906	0.1267	0.0000	960.8570
Maximum	1.1821	3.3396	3.4896	0.0106	0.7134	0.1213	0.8348	0.2082	0.1135	0.3217	0.0000	957.6906	957.6906	0.1267	0.0000	960.8570

Mitigated Construction

	ROG	NOx	СО	SO2	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					ton	s/yr							МТ	/yr		
2023	1.1821	3.3396	3.4896	0.0106	0.5231	0.1213	0.6444	0.1470	0.1135	0.2605	0.0000	957.6901	957.6901	0.1267	0.0000	960.8565
Maximum	1.1821	3.3396	3.4896	0.0106	0.5231	0.1213	0.6444	0.1470	0.1135	0.2605	0.0000	957.6901	957.6901	0.1267	0.0000	960.8565

	ROG	NOx	со	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	26.68	0.00	22.80	29.38	0.00	19.02	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	1-1-2023	3-31-2023	1.3672	1.3672
2	4-1-2023	6-30-2023	0.7304	0.7304
3	7-1-2023	9-30-2023	0.7384	0.7384
		Highest	1.3672	1.3672

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category		tons/yr										MT/yr						
Area	1.0312	0.0262	2.2734	1.2000e- 004		0.0126	0.0126	1 1 1	0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036		
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	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Water	n					0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Total	1.0312	0.0262	2.2734	1.2000e- 004	0.0000	0.0126	0.0126	0.0000	0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036		

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO		gitive M10	Exhaust PM10	PM10 Total	Fugiti PM2		aust 12.5	PM2.5 Total	Bio- CO	2 NBio	- CO2	Total CO2	CH4	N2O	CO2	e
Category						tons	s/yr									M	T/yr			
Area	1.0312	0.0262	2.273	4 1.200 004			0.0126	0.0126		0.0	126	0.0126	0.0000	3.7	140	3.7140	3.5800e- 003	0.000	0 3.803	36
Energy	0.0000	0.0000	0.000	0 0.000	00		0.0000	0.0000		0.0	000	0.0000	0.0000	0.0	000	0.0000	0.0000	0.000	0 0.000	00
Widdlid	0.0000	0.0000	0.000	0 0.000	0.0	0000	0.0000	0.0000	0.00	00 0.0	000	0.0000	0.0000	0.0	000	0.0000	0.0000	0.000	0 0.000	00
Waste	F; 0; 0; 0; 0;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.0	000	0.0000	0.0000	0.000	0 0.000	00
Water	F; 0; 0; 0; 0;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.0	000	0.0000	0.0000	0.000	0 0.000	00
Total	1.0312	0.0262	2.273	4 1.200 004		0000	0.0126	0.0126	0.00	00 0.0	126	0.0126	0.0000	3.7	140	3.7140	3.5800e- 003	0.000	0 3.803	36
	ROG		NOx	со	SO2	Fugi PM			VI10 otal	Fugitive PM2.5		aust PM2 12.5 Tot		o- CO2	NBio-	CO2 Total	CO2 C	H4	N20	CO2e
Percent Reduction	0.00		0.00	0.00	0.00	0.(00 0.	.00 0	.00	0.00	0.	00 0.0	00	0.00	0.0	0 0.0	0 00	.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	1/1/2023	1/13/2023	5	10	
2	Grading	Grading	1/14/2023	2/10/2023	5	20	
3	Building Construction	Building Construction	2/11/2023	12/29/2023	5	230	
4	Architectural Coating	Architectural Coating	11/5/2023	12/29/2023	5	40	
5	Paving	Paving	12/2/2023	12/29/2023	5	20	

Acres of Grading (Site Preparation Phase): 100

Acres of Grading (Grading Phase): 200

Acres of Paving: 4.46

Residential Indoor: 488,519; Residential Outdoor: 162,840; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,661 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Crawler Tractors	2	8.00	212	0.43
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	0	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	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	2.00	4,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	240.00	57.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	48.00	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 - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.1434	0.0000	0.1434	0.0554	0.0000	0.0554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2094	0.0915	2.8000e- 004		8.7900e- 003	8.7900e- 003		8.0900e- 003	8.0900e- 003	0.0000	25.0115	25.0115	8.0900e- 003	0.0000	25.2137
Total	0.0192	0.2094	0.0915	2.8000e- 004	0.1434	8.7900e- 003	0.1522	0.0554	8.0900e- 003	0.0635	0.0000	25.0115	25.0115	8.0900e- 003	0.0000	25.2137

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e- 005	6.6000e- 004	1.5000e- 004	0.0000	6.0000e- 005	0.0000	6.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.2355	0.2355	1.0000e- 005	0.0000	0.2358
Worker	3.4000e- 004	2.1000e- 004	2.4100e- 003	1.0000e- 005	9.9000e- 004	1.0000e- 005	9.9000e- 004	2.6000e- 004	1.0000e- 005	2.7000e- 004	0.0000	0.7415	0.7415	2.0000e- 005	0.0000	0.7419
Total	3.6000e- 004	8.7000e- 004	2.5600e- 003	1.0000e- 005	1.0500e- 003	1.0000e- 005	1.0500e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.9770	0.9770	3.0000e- 005	0.0000	0.9777

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					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0559	0.0000	0.0559	0.0216	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2094	0.0915	2.8000e- 004		8.7900e- 003	8.7900e- 003		8.0900e- 003	8.0900e- 003	0.0000	25.0115	25.0115	8.0900e- 003	0.0000	25.2137
Total	0.0192	0.2094	0.0915	2.8000e- 004	0.0559	8.7900e- 003	0.0647	0.0216	8.0900e- 003	0.0297	0.0000	25.0115	25.0115	8.0900e- 003	0.0000	25.2137

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	'/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e- 005	6.6000e- 004	1.5000e- 004	0.0000	6.0000e- 005	0.0000	6.0000e- 005	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.2355	0.2355	1.0000e- 005	0.0000	0.2358
Worker	3.4000e- 004	2.1000e- 004	2.4100e- 003	1.0000e- 005	9.9000e- 004	1.0000e- 005	9.9000e- 004	2.6000e- 004	1.0000e- 005	2.7000e- 004	0.0000	0.7415	0.7415	2.0000e- 005	0.0000	0.7419
Total	3.6000e- 004	8.7000e- 004	2.5600e- 003	1.0000e- 005	1.0500e- 003	1.0000e- 005	1.0500e- 003	2.8000e- 004	1.0000e- 005	2.9000e- 004	0.0000	0.9770	0.9770	3.0000e- 005	0.0000	0.9777

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.1687	0.0000	0.1687	0.0449	0.0000	0.0449	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.4169	0.2808	7.2000e- 004		0.0167	0.0167		0.0154	0.0154	0.0000	62.8214	62.8214	0.0203	0.0000	63.3293
Total	0.0391	0.4169	0.2808	7.2000e- 004	0.1687	0.0167	0.1854	0.0449	0.0154	0.0603	0.0000	62.8214	62.8214	0.0203	0.0000	63.3293

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	7.7200e- 003	0.2994	0.0613	1.6900e- 003	0.0409	5.7000e- 004	0.0415	0.0112	5.4000e- 004	0.0118	0.0000	162.8787	162.8787	8.0200e- 003	0.0000	163.0791
Vendor	3.0000e- 005	1.3100e- 003	2.9000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.4710	0.4710	3.0000e- 005	0.0000	0.4717
Worker	7.5000e- 004	4.7000e- 004	5.3500e- 003	2.0000e- 005	2.2000e- 003	1.0000e- 005	2.2100e- 003	5.8000e- 004	1.0000e- 005	6.0000e- 004	0.0000	1.6478	1.6478	3.0000e- 005	0.0000	1.6487
Total	8.5000e- 003	0.3011	0.0669	1.7100e- 003	0.0433	5.8000e- 004	0.0438	0.0119	5.5000e- 004	0.0124	0.0000	164.9975	164.9975	8.0800e- 003	0.0000	165.1994

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					ton	s/yr							MT	∵/yr		
Fugitive Dust					0.0658	0.0000	0.0658	0.0175	0.0000	0.0175	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.4169	0.2808	7.2000e- 004		0.0167	0.0167		0.0154	0.0154	0.0000	62.8213	62.8213	0.0203	0.0000	63.3292
Total	0.0391	0.4169	0.2808	7.2000e- 004	0.0658	0.0167	0.0825	0.0175	0.0154	0.0329	0.0000	62.8213	62.8213	0.0203	0.0000	63.3292

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	7.7200e- 003	0.2994	0.0613	1.6900e- 003	0.0409	5.7000e- 004	0.0415	0.0112	5.4000e- 004	0.0118	0.0000	162.8787	162.8787	8.0200e- 003	0.0000	163.0791
Vendor	3.0000e- 005	1.3100e- 003	2.9000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.4710	0.4710	3.0000e- 005	0.0000	0.4717
Worker	7.5000e- 004	4.7000e- 004	5.3500e- 003	2.0000e- 005	2.2000e- 003	1.0000e- 005	2.2100e- 003	5.8000e- 004	1.0000e- 005	6.0000e- 004	0.0000	1.6478	1.6478	3.0000e- 005	0.0000	1.6487
Total	8.5000e- 003	0.3011	0.0669	1.7100e- 003	0.0433	5.8000e- 004	0.0438	0.0119	5.5000e- 004	0.0124	0.0000	164.9975	164.9975	8.0800e- 003	0.0000	165.1994

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.1925	1.7753	1.9907	3.3200e- 003		0.0860	0.0860		0.0808	0.0808	0.0000	285.6613	285.6613	0.0696	0.0000	287.4010
Total	0.1925	1.7753	1.9907	3.3200e- 003		0.0860	0.0860		0.0808	0.0808	0.0000	285.6613	285.6613	0.0696	0.0000	287.4010

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0112	0.4306	0.0954	1.6100e- 003	0.0414	4.4000e- 004	0.0418	0.0119	4.2000e- 004	0.0124	0.0000	154.3716	154.3716	8.8500e- 003	0.0000	154.5927
Worker	0.1041	0.0647	0.7378	2.5100e- 003	0.3034	1.7300e- 003	0.3051	0.0806	1.5900e- 003	0.0821	0.0000	227.3985	227.3985	4.6100e- 003	0.0000	227.5138
Total	0.1153	0.4953	0.8332	4.1200e- 003	0.3448	2.1700e- 003	0.3469	0.0925	2.0100e- 003	0.0945	0.0000	381.7700	381.7700	0.0135	0.0000	382.1065

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					ton	s/yr							МТ	/yr		
Off-Road	0.1925	1.7753	1.9907	3.3200e- 003		0.0860	0.0860		0.0808	0.0808	0.0000	285.6609	285.6609	0.0696	0.0000	287.4006
Total	0.1925	1.7753	1.9907	3.3200e- 003		0.0860	0.0860		0.0808	0.0808	0.0000	285.6609	285.6609	0.0696	0.0000	287.4006

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/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	0.0112	0.4306	0.0954	1.6100e- 003	0.0414	4.4000e- 004	0.0418	0.0119	4.2000e- 004	0.0124	0.0000	154.3716	154.3716	8.8500e- 003	0.0000	154.5927
Worker	0.1041	0.0647	0.7378	2.5100e- 003	0.3034	1.7300e- 003	0.3051	0.0806	1.5900e- 003	0.0821	0.0000	227.3985	227.3985	4.6100e- 003	0.0000	227.5138
Total	0.1153	0.4953	0.8332	4.1200e- 003	0.3448	2.1700e- 003	0.3469	0.0925	2.0100e- 003	0.0945	0.0000	381.7700	381.7700	0.0135	0.0000	382.1065

3.5 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	∵/yr		
, a contra cocating	0.7818					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	5.1100e- 003	0.0348	0.0483	8.0000e- 005		1.8900e- 003	1.8900e- 003		1.8900e- 003	1.8900e- 003	0.0000	6.8087	6.8087	4.1000e- 004	0.0000	6.8189
Total	0.7869	0.0348	0.0483	8.0000e- 005		1.8900e- 003	1.8900e- 003		1.8900e- 003	1.8900e- 003	0.0000	6.8087	6.8087	4.1000e- 004	0.0000	6.8189

3.5 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6200e- 003	2.2500e- 003	0.0257	9.0000e- 005	0.0106	6.0000e- 005	0.0106	2.8000e- 003	6.0000e- 005	2.8600e- 003	0.0000	7.9095	7.9095	1.6000e- 004	0.0000	7.9135
Total	3.6200e- 003	2.2500e- 003	0.0257	9.0000e- 005	0.0106	6.0000e- 005	0.0106	2.8000e- 003	6.0000e- 005	2.8600e- 003	0.0000	7.9095	7.9095	1.6000e- 004	0.0000	7.9135

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					ton	s/yr							МТ	/yr		
Archit. Coating	0.7818					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1100e- 003	0.0348	0.0483	8.0000e- 005		1.8900e- 003	1.8900e- 003		1.8900e- 003	1.8900e- 003	0.0000	6.8087	6.8087	4.1000e- 004	0.0000	6.8189
Total	0.7869	0.0348	0.0483	8.0000e- 005		1.8900e- 003	1.8900e- 003		1.8900e- 003	1.8900e- 003	0.0000	6.8087	6.8087	4.1000e- 004	0.0000	6.8189

3.5 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6200e- 003	2.2500e- 003	0.0257	9.0000e- 005	0.0106	6.0000e- 005	0.0106	2.8000e- 003	6.0000e- 005	2.8600e- 003	0.0000	7.9095	7.9095	1.6000e- 004	0.0000	7.9135
Total	3.6200e- 003	2.2500e- 003	0.0257	9.0000e- 005	0.0106	6.0000e- 005	0.0106	2.8000e- 003	6.0000e- 005	2.8600e- 003	0.0000	7.9095	7.9095	1.6000e- 004	0.0000	7.9135

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0103	0.1019	0.1458	2.3000e- 004		5.1000e- 003	5.1000e- 003		4.6900e- 003	4.6900e- 003	0.0000	20.0269	20.0269	6.4800e- 003	0.0000	20.1888
Paving	5.8400e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0162	0.1019	0.1458	2.3000e- 004		5.1000e- 003	5.1000e- 003		4.6900e- 003	4.6900e- 003	0.0000	20.0269	20.0269	6.4800e- 003	0.0000	20.1888

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e- 005	1.3100e- 003	2.9000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.4710	0.4710	3.0000e- 005	0.0000	0.4717
Worker	5.7000e- 004	3.5000e- 004	4.0100e- 003	1.0000e- 005	1.6500e- 003	1.0000e- 005	1.6600e- 003	4.4000e- 004	1.0000e- 005	4.5000e- 004	0.0000	1.2359	1.2359	3.0000e- 005	0.0000	1.2365
Total	6.0000e- 004	1.6600e- 003	4.3000e- 003	1.0000e- 005	1.7800e- 003	1.0000e- 005	1.7900e- 003	4.8000e- 004	1.0000e- 005	4.9000e- 004	0.0000	1.7069	1.7069	6.0000e- 005	0.0000	1.7082

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					ton	s/yr							МТ	/yr		
Off-Road	0.0103	0.1019	0.1458	2.3000e- 004		5.1000e- 003	5.1000e- 003		4.6900e- 003	4.6900e- 003	0.0000	20.0268	20.0268	6.4800e- 003	0.0000	20.1888
Paving	5.8400e- 003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0162	0.1019	0.1458	2.3000e- 004		5.1000e- 003	5.1000e- 003		4.6900e- 003	4.6900e- 003	0.0000	20.0268	20.0268	6.4800e- 003	0.0000	20.1888

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e- 005	1.3100e- 003	2.9000e- 004	0.0000	1.3000e- 004	0.0000	1.3000e- 004	4.0000e- 005	0.0000	4.0000e- 005	0.0000	0.4710	0.4710	3.0000e- 005	0.0000	0.4717
Worker	5.7000e- 004	3.5000e- 004	4.0100e- 003	1.0000e- 005	1.6500e- 003	1.0000e- 005	1.6600e- 003	4.4000e- 004	1.0000e- 005	4.5000e- 004	0.0000	1.2359	1.2359	3.0000e- 005	0.0000	1.2365
Total	6.0000e- 004	1.6600e- 003	4.3000e- 003	1.0000e- 005	1.7800e- 003	1.0000e- 005	1.7900e- 003	4.8000e- 004	1.0000e- 005	4.9000e- 004	0.0000	1.7069	1.7069	6.0000e- 005	0.0000	1.7082

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					ton	s/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

	Avei	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Retirement Community	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Congregate Care (Assisted	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Other 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
Retirement Community	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Other Asphalt Surfaces	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Parking Lot	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Retirement Community	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr						MT/yr									
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Retirement Community	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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr							MT/yr								
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other 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
Retirement Community	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

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5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e			
Land Use	kWh/yr	MT/yr						
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000			
Retirement Community	0	0.0000	0.0000	0.0000	0.0000			
Total		0.0000	0.0000	0.0000	0.0000			

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	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					ton	s/yr							МТ	/yr		
Mitigated	1.0312	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036
Unmitigated	1.0312	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	CO	SO2	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					ton	s/yr							МТ	/yr		
Architectural Coating	0.0782					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8843					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0687	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036
Total	1.0312	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	0.0782		1 1 1	1 1 1	1 1 1	0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8843					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0687	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036
Total	1.0312	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		MT	/yr	
Mitigated		0.0000	0.0000	0.0000
e i i i i i i i i i i i i i i i i i i i		0.0000	0.0000	0.0000

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
Congregate Care (Assisted Living)	0/0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Retirement Community	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	7/yr	
Congregate Care (Assisted Living)	0/0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Retirement Community	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

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Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	7/yr	
Mitigated		0.0000	0.0000	0.0000
•		0.0000	0.0000	0.0000

8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	7/yr	
Congregate Care (Assisted Living)		0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
Congregate Care (Assisted Living)	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	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

|--|

User Defined Equipment

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Equipment Type Number

11.0 Vegetation

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APPENDIX 3.2:

CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS



Glen Ivy Senior Community (Operations)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	110.36	1000sqft	2.53	110,356.00	0
Parking Lot	210.00	Space	1.93	84,000.00	0
Congregate Care (Assisted Living)	144.00	Dwelling Unit	3.63	157,905.16	412
Retirement Community	76.00	Dwelling Unit	1.91	83,338.84	217

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2

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Project Characteristics -

Land Use - Total Project Area is 10 acres

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

Vehicle Trips - Trip Characteristics are based on information provided in the Traffic Analysis prepared by Urban Crossroads, Inc.

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Vehicle Emission Factors - EMFAC2017

Woodstoves - Rule 445

Energy Use - The Project will design building shells and building components to meet 2019 Title 24 Standards which expects 53% less energy for residential uses.

Energy Mitigation - R2-E10

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	741.44	519.01
tblEnergyUse	LightingElect	1,001.10	470.52
tblEnergyUse	T24E	772.17	540.52
tblEnergyUse	T24E	877.14	412.26
tblEnergyUse	T24NG	8,764.08	6,134.86
tblEnergyUse	T24NG	9,544.50	4,485.92
tblFireplaces	NumberGas	122.40	144.00
tblFireplaces	NumberGas	64.60	76.00
tblFireplaces	NumberNoFireplace	14.40	0.00
tblFireplaces	NumberNoFireplace	7.60	0.00
tblFireplaces	NumberWood	7.20	0.00
tblFireplaces	NumberWood	3.80	0.00

tblLandUse	LandUseSquareFeet	144,000.00	157,905.16
tblLandUse	LandUseSquareFeet	76,000.00	83,338.84
tblLandUse	LotAcreage	1.89	1.93
tblLandUse	LotAcreage	9.00	3.63
tblLandUse	LotAcreage	15.20	1.91
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblVehicleEF	HHD	0.96	0.02
tblVehicleEF	HHD	0.03	0.02
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	2.07	6.43
tblVehicleEF	HHD	0.41	0.24
tblVehicleEF	HHD	1.44	4.3850e-003
tblVehicleEF	HHD	6,147.84	1,065.92
tblVehicleEF	HHD	1,399.88	1,272.83
tblVehicleEF	HHD	4.72	0.04
tblVehicleEF	HHD	17.43	5.31
tblVehicleEF	HHD	0.97	1.96
tblVehicleEF	HHD	20.29	2.50
tblVehicleEF	HHD	5.1890e-003	2.3650e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.1440e-003	0.02
tblVehicleEF	HHD	3.9000e-005	0.00
tblVehicleEF	HHD	4.9650e-003	2.2630e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.8620e-003	8.8060e-003
tblVehicleEF	HHD	4.9210e-003	0.02
tblVehicleEF	HHD	3.6000e-005	0.00
tblVehicleEF	HHD	7.3000e-005	3.0000e-006
tblVehicleEF	HHD	2.3430e-003	9.7000e-005
tblVehicleEF	HHD	0.55	0.44
tblVehicleEF	HHD	4.3000e-005	2.0000e-006
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	1.5400e-004	4.4400e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.06	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	7.3000e-005	3.0000e-006
tblVehicleEF	HHD	2.3430e-003	9.7000e-005
tblVehicleEF	HHD	0.63	0.50
tblVehicleEF	HHD	4.3000e-005	2.0000e-006
tblVehicleEF	HHD	0.08	0.05
tblVehicleEF	HHD	1.5400e-004	4.4400e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.91	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	1.50	6.35
tblVehicleEF	HHD	0.41	0.24
tblVehicleEF	HHD	1.38	4.1390e-003
tblVehicleEF	HHD	6,513.09	1,052.83

tblVehicleEF	HHD	1,399.88	1,272.83
tblVehicleEF	HHD	4.72	0.04
tblVehicleEF	HHD	17.99	5.06
tblVehicleEF	HHD	0.91	1.85
tblVehicleEF	HHD	20.28	2.50
tblVehicleEF	HHD	4.3760e-003	2.0780e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.1440e-003	0.02
tblVehicleEF	HHD	3.9000e-005	0.00
tblVehicleEF	HHD	4.1860e-003	1.9880e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8620e-003	8.8060e-003
tblVehicleEF	HHD	4.9210e-003	0.02
tblVehicleEF	HHD	3.6000e-005	0.00
tblVehicleEF	HHD	1.4000e-004	5.0000e-006
tblVehicleEF	HHD	2.6540e-003	1.0600e-004
tblVehicleEF	HHD	0.51	0.46
tblVehicleEF	HHD	8.2000e-005	3.0000e-006
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	1.5700e-004	4.4900e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.06	9.8850e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.0000e-005	0.00
tblVehicleEF	HHD	1.4000e-004	5.0000e-006
tblVehicleEF	HHD	2.6540e-003	1.0600e-004

tblVehicleEF	HHD	0.59	0.53
tblVehicleEF	HHD	8.2000e-005	3.0000e-006
tblVehicleEF	HHD	0.08	0.05
tblVehicleEF	HHD	1.5700e-004	4.4900e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	1.04	0.02
tblVehicleEF	HHD	0.03	8.2000e-004
tblVehicleEF	HHD	0.08	0.00
tblVehicleEF	HHD	2.85	6.51
tblVehicleEF	HHD	0.41	0.15
tblVehicleEF	HHD	1.46	4.3390e-003
tblVehicleEF	HHD	5,643.45	1,077.40
tblVehicleEF	HHD	1,399.88	1,253.68
tblVehicleEF	HHD	4.72	0.04
tblVehicleEF	HHD	16.66	5.62
tblVehicleEF	HHD	0.96	1.92
tblVehicleEF	HHD	20.29	2.50
tblVehicleEF	HHD	6.3140e-003	2.7000e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.1440e-003	0.02
tblVehicleEF	HHD	3.9000e-005	0.00
tblVehicleEF	HHD	6.0400e-003	2.5830e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8620e-003	8.7520e-003
tblVehicleEF	HHD	4.9210e-003	0.02
tblVehicleEF	HHD	3.6000e-005	0.00
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tblVehicleEF	HHD	5.5000e-005	3.0000e-006
tblVehicleEF	HHD	2.4340e-003	1.0800e-004
tblVehicleEF	HHD	0.59	0.40
tblVehicleEF	HHD	3.6000e-005	2.0000e-006
tblVehicleEF	HHD	0.04	0.02
tblVehicleEF	HHD	1.6500e-004	4.7200e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	7.1000e-005	0.00
tblVehicleEF	HHD	5.5000e-005	3.0000e-006
tblVehicleEF	HHD	2.4340e-003	1.0800e-004
tblVehicleEF	HHD	0.68	0.46
tblVehicleEF	HHD	3.6000e-005	2.0000e-006
tblVehicleEF	HHD	0.08	0.02
tblVehicleEF	HHD	1.6500e-004	4.7200e-004
tblVehicleEF	HHD	0.04	1.0000e-006
tblVehicleEF	LDA	3.3240e-003	1.8870e-003
tblVehicleEF	LDA	4.1920e-003	0.04
tblVehicleEF	LDA	0.51	0.56
tblVehicleEF	LDA	0.96	2.03
tblVehicleEF	LDA	235.32	251.70
tblVehicleEF	LDA	54.50	52.26
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.17
tblVehicleEF	LDA	1.5540e-003	1.3050e-003
tblVehicleEF	LDA	2.2370e-003	1.7590e-003
			1

tblVehicleEF	LDA	1.4310e-003	1.2020e-003
tblVehicleEF	LDA	2.0570e-003	1.6170e-003
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.09	0.09
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	8.3520e-003	6.9510e-003
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.3560e-003	2.4590e-003
tblVehicleEF	LDA	5.6100e-004	5.1100e-004
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.09	0.09
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.03	0.19
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDA	3.7650e-003	2.1290e-003
tblVehicleEF	LDA	3.6350e-003	0.04
tblVehicleEF	LDA	0.62	0.67
tblVehicleEF	LDA	0.85	1.70
tblVehicleEF	LDA	256.22	272.11
tblVehicleEF	LDA	54.50	51.65
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.15
tblVehicleEF	LDA	1.5540e-003	1.3050e-003
tblVehicleEF	LDA	2.2370e-003	1.7590e-003
tblVehicleEF	LDA	1.4310e-003	1.2020e-003

biVehicleEF LDA 2.0570e-003 1.6170e-003 tbiVehicleEF LDA 0.09 0.09 tbiVehicleEF LDA 0.10 0.10 tbiVehicleEF LDA 0.06 0.07 tbiVehicleEF LDA 0.06 0.07 tbiVehicleEF LDA 9.4470e-003 7.7540e-003 tbiVehicleEF LDA 0.03 0.19 tbiVehicleEF LDA 0.05 0.16 tbiVehicleEF LDA 2.5670e-003 2.6590e-003 tbiVehicleEF LDA 2.5670e-003 2.6590e-004 tbiVehicleEF LDA 0.09 0.09 tbiVehicleEF LDA 0.09 0.09 tbiVehicleEF LDA 0.09 0.09 tbiVehicleEF LDA 0.01 0.10 tbiVehicleEF LDA 0.03 0.19 tbiVehicleEF LDA 0.03 0.07 tbiVehicleEF LDA 0.03 0.19 tbiVehicleEF	
tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 9.4470e-003 7.7540e-003 tblVehicleEF LDA 9.4470e-003 7.7540e-003 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.16 tblVehicleEF LDA 2.5670e-003 2.6590e-003 tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.18 tblVehicleEF <td< td=""><td></td></td<>	
tbl/VehicleEF LDA 0.06 0.07 tbl/VehicleEF LDA 9.4470e-003 7.7540e-003 tbl/VehicleEF LDA 0.03 0.19 tbl/VehicleEF LDA 0.05 0.16 tbl/VehicleEF LDA 2.5670e-003 2.6590e-003 tbl/VehicleEF LDA 2.5900e-004 5.0500e-004 tbl/VehicleEF LDA 0.09 0.09 tbl/VehicleEF LDA 0.01 0.10 tbl/VehicleEF LDA 0.09 0.09 tbl/VehicleEF LDA 0.01 0.10 tbl/VehicleEF LDA 0.06 0.07 tbl/VehicleEF LDA 0.01 0.01 tbl/VehicleEF LDA 0.03 0.19 tbl/VehicleEF LDA 0.03 0.19 tbl/VehicleEF LDA 0.05 0.18 tbl/VehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 9.4470e-003 7.7540e-003 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.16 tblVehicleEF LDA 2.5670e-003 2.6590e-003 tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.01 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.16 tblVehicleEF LDA 2.5670e-003 2.6590e-003 tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.05 0.16 tblVehicleEF LDA 2.5670e-003 2.6590e-003 tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.10 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	· · · · · · · · · · · · · · · · · · ·
tblVehicleEF LDA 2.5670e-003 2.6590e-003 tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 5.5900e-004 5.0500e-004 tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.09 0.09 tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.10 0.10 tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.06 0.07 tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.01 0.01 tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.03 0.19 tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 0.05 0.18 tblVehicleEF LDA 3.2080e-003 1.8550e-003	
tblVehicleEF LDA 3.2080e-003 1.8550e-003	
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tblVehicleEF LDA 4.3060e-003 0.04	
tblVehicleEF LDA 0.48 0.54	
tblVehicleEF LDA 0.98 2.01	
tblVehicleEF LDA 229.53 248.26	
tblVehicleEF LDA 54.50 52.24	
tblVehicleEF LDA 0.04 0.03	
tblVehicleEF LDA 0.06 0.16	
tblVehicleEF LDA 1.5540e-003 1.3050e-003	
tblVehicleEF LDA 2.2370e-003 1.7590e-003	
tblVehicleEF LDA 1.4310e-003 1.2020e-003	
tblVehicleEF LDA 2.0570e-003 1.6170e-003	

tblVehicleEF tblVehicleEF	LDA	0.04	0.05
tblVehicleEF			
	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	8.0650e-003	6.8280e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.06	0.19
tblVehicleEF	LDA	2.2980e-003	2.4260e-003
tblVehicleEF	LDA	5.6100e-004	5.1000e-004
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	9.9310e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.06	0.21
tblVehicleEF	LDT1	9.2940e-003	5.7490e-003
tblVehicleEF	LDT1	0.01	0.07
tblVehicleEF	LDT1	1.18	1.22
tblVehicleEF	LDT1	2.73	2.28
tblVehicleEF	LDT1	295.40	298.87
tblVehicleEF	LDT1	68.37	63.71
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.17	0.26
tblVehicleEF	LDT1	2.2770e-003	1.8930e-003
tblVehicleEF	LDT1	3.3510e-003	2.5560e-003
tblVehicleEF	LDT1	2.0960e-003	1.7420e-003
tblVehicleEF	LDT1	3.0820e-003	2.3500e-003
tblVehicleEF	LDT1	0.18	0.16

tblVehicleEF	LDT1	0.30	0.22
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.18	0.73
tblVehicleEF	LDT1	0.19	0.37
tblVehicleEF	LDT1	2.9680e-003	2.9210e-003
tblVehicleEF	LDT1	7.3100e-004	6.2300e-004
tblVehicleEF	LDT1	0.18	0.16
tblVehicleEF	LDT1	0.30	0.23
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.18	0.74
tblVehicleEF	LDT1	0.21	0.40
tblVehicleEF	LDT1	0.01	6.4140e-003
tblVehicleEF	LDT1	0.01	0.06
tblVehicleEF	LDT1	1.43	1.44
tblVehicleEF	LDT1	2.40	1.91
tblVehicleEF	LDT1	320.93	320.06
tblVehicleEF	LDT1	68.37	62.93
tblVehicleEF	LDT1	0.11	0.09
tblVehicleEF	LDT1	0.16	0.24
tblVehicleEF	LDT1	2.2770e-003	1.8930e-003
tblVehicleEF	LDT1	3.3510e-003	2.5560e-003
tblVehicleEF	LDT1	2.0960e-003	1.7420e-003
tblVehicleEF	LDT1	3.0820e-003	2.3500e-003
tblVehicleEF	LDT1	0.36	0.30
tblVehicleEF	LDT1	0.37	0.26

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.18	0.72
tblVehicleEF	LDT1	0.16	0.31
tblVehicleEF	LDT1	3.2270e-003	3.1280e-003
tblVehicleEF	LDT1	7.2500e-004	6.1500e-004
tblVehicleEF	LDT1	0.36	0.30
tblVehicleEF	LDT1	0.37	0.26
tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.18	0.72
tblVehicleEF	LDT1	0.18	0.34
tblVehicleEF	LDT1	8.9360e-003	5.6560e-003
tblVehicleEF	LDT1	0.01	0.07
tblVehicleEF	LDT1	1.11	1.18
tblVehicleEF	LDT1	2.78	2.26
tblVehicleEF	LDT1	287.77	295.29
tblVehicleEF	LDT1	68.37	63.68
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.17	0.26
tblVehicleEF	LDT1	2.2770e-003	1.8930e-003
tblVehicleEF	LDT1	3.3510e-003	2.5560e-003
tblVehicleEF	LDT1	2.0960e-003	1.7420e-003
tblVehicleEF	LDT1	3.0820e-003	2.3500e-003
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.33	0.26
tblVehicleEF	LDT1	0.10	0.11

tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.21	0.86
tblVehicleEF	LDT1	0.19	0.36
tblVehicleEF	LDT1	2.8910e-003	2.8860e-003
tblVehicleEF	LDT1	7.3200e-004	6.2200e-004
tblVehicleEF	LDT1	0.16	0.16
tblVehicleEF	LDT1	0.33	0.26
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.21	0.86
tblVehicleEF	LDT1	0.21	0.40
tblVehicleEF	LDT2	4.7540e-003	3.1840e-003
tblVehicleEF	LDT2	5.7630e-003	0.06
tblVehicleEF	LDT2	0.68	0.79
tblVehicleEF	LDT2	1.27	2.59
tblVehicleEF	LDT2	330.23	314.22
tblVehicleEF	LDT2	76.02	67.26
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.26
tblVehicleEF	LDT2	1.6020e-003	1.3480e-003
tblVehicleEF	LDT2	2.3660e-003	1.7950e-003
tblVehicleEF	LDT2	1.4730e-003	1.2410e-003
tblVehicleEF	LDT2	2.1760e-003	1.6510e-003
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.01	0.01
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tblVehicleEF	LDT2	0.06	0.39
tblVehicleEF	LDT2	0.08	0.28
tblVehicleEF	LDT2	3.3070e-003	3.0700e-003
tblVehicleEF	LDT2	7.8100e-004	6.5700e-004
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.39
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LDT2	5.3890e-003	3.5750e-003
tblVehicleEF	LDT2	5.0030e-003	0.05
tblVehicleEF	LDT2	0.83	0.94
tblVehicleEF	LDT2	1.13	2.16
tblVehicleEF	LDT2	359.32	334.38
tblVehicleEF	LDT2	76.02	66.44
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.24
tblVehicleEF	LDT2	1.6020e-003	1.3480e-003
tblVehicleEF	LDT2	2.3660e-003	1.7950e-003
tblVehicleEF	LDT2	1.4730e-003	1.2410e-003
tblVehicleEF	LDT2	2.1760e-003	1.6510e-003
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.39
			•

tblVehicleEF	LDT2	0.07	0.24
tblVehicleEF	LDT2	3.6000e-003	3.2670e-003
tblVehicleEF	LDT2	7.7900e-004	6.4900e-004
tblVehicleEF	LDT2	0.12	0.15
tblVehicleEF	LDT2	0.12	0.14
tblVehicleEF	LDT2	0.10	0.13
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.39
tblVehicleEF	LDT2	0.07	0.27
tblVehicleEF	LDT2	4.5710e-003	3.1320e-003
tblVehicleEF	LDT2	5.9350e-003	0.06
tblVehicleEF	LDT2	0.63	0.76
tblVehicleEF	LDT2	1.30	2.57
tblVehicleEF	LDT2	321.50	310.81
tblVehicleEF	LDT2	76.02	67.23
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.10	0.25
tblVehicleEF	LDT2	1.6020e-003	1.3480e-003
tblVehicleEF	LDT2	2.3660e-003	1.7950e-003
tblVehicleEF	LDT2	1.4730e-003	1.2410e-003
tblVehicleEF	LDT2	2.1760e-003	1.6510e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.07	0.46
tblVehicleEF	LDT2	0.08	0.28
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tblVehicleEF	LDT2	3.2190e-003	3.0370e-003
tblVehicleEF	LDT2	7.8200e-004	6.5700e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.11	0.13
tblVehicleEF	LDT2	0.04	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.46
tblVehicleEF	LDT2	0.09	0.31
tblVehicleEF	LHD1	4.9950e-003	4.5410e-003
tblVehicleEF	LHD1	8.5970e-003	4.4200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.81	0.60
tblVehicleEF	LHD1	2.14	0.89
tblVehicleEF	LHD1	9.25	9.36
tblVehicleEF	LHD1	596.36	619.96
tblVehicleEF	LHD1	29.33	9.99
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.91	1.39
tblVehicleEF	LHD1	0.93	0.28
tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF	LHD1	9.2400e-004	9.6900e-004
tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF	LHD1	0.01	9.8330e-003

tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF	LHD1	3.6750e-003	2.3920e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8430e-003	1.2620e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.31	0.44
tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3400e-004	9.9000e-005
tblVehicleEF	LHD1	3.6750e-003	2.3920e-003
tblVehicleEF	LHD1	0.10	0.07
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8430e-003	1.2620e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.31	0.44
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD1	4.9950e-003	4.5540e-003
tblVehicleEF	LHD1	8.7610e-003	4.4900e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.17
tblVehicleEF	LHD1	0.82	0.61
tblVehicleEF	LHD1	2.04	0.84
tblVehicleEF	LHD1	9.25	9.36
tblVehicleEF	LHD1	596.36	619.98
tblVehicleEF	LHD1	29.33	9.91

tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	1.80	1.31
tblVehicleEF	LHD1	0.90	0.27
tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF	LHD1	9.2400e-004	9.6900e-004
tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF	LHD1	0.01	9.8330e-003
tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF	LHD1	6.8550e-003	4.2440e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	3.4810e-003	2.4050e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.32	0.44
tblVehicleEF	LHD1	0.22	0.06
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3200e-004	9.8000e-005
tblVehicleEF	LHD1	6.8550e-003	4.2440e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	3.4810e-003	2.4050e-003
tblVehicleEF	LHD1	0.09	0.07
tblVehicleEF	LHD1	0.32	0.44
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th/VehicleEF LHD1 0.24 0.07 tb/VehicleEF LHD1 4.9950e-003 4.5430e-003 tb/VehicleEF LHD1 8.5850e-003 4.4280e-003 tb/VehicleEF LHD1 0.02 0.01 tb/VehicleEF LHD1 0.14 0.17 tb/VehicleEF LHD1 0.14 0.60 tb/VehicleEF LHD1 0.25 9.36 tb/VehicleEF LHD1 596.36 619.96 tb/VehicleEF LHD1 596.36 619.96 tb/VehicleEF LHD1 23.33 9.38 tb/VehicleEF LHD1 0.49 0.09 tb/VehicleEF LHD1 1.89 1.37 tb/VehicleEF LHD1 0.92 0.28 tb/VehicleEF LHD1 0.91 0.01 tb/VehicleEF LHD1 0.92 0.28 tb/VehicleEF LHD1 0.92 0.28 tb/VehicleEF LHD1 0.91 0.01 tb/VehicleEF L				
biVehicleEF LH01 8.5850e-003 4.4280e-003 tbiVehicleEF LH01 0.02 0.01 tbiVehicleEF LH01 0.14 0.17 tbiVehicleEF LH01 0.81 0.60 tbiVehicleEF LH01 0.81 0.60 tbiVehicleEF LH01 9.25 9.36 tbiVehicleEF LH01 29.33 9.98 tbiVehicleEF LH01 0.09 0.08 tbiVehicleEF LH01 0.99 0.08 tbiVehicleEF LH01 0.32 0.28 tbiVehicleEF LH01 0.92 0.28 tbiVehicleEF LH01 9.6600e-004 1.0130e-003 tbiVehicleEF LH01 0.01 0.01 tbiVehicleEF LH01 9.6600e-004 1.0130e-003 tbiVehicleEF LH01 9.2400e-004 2.1100e-004 tbiVehicleEF LH01 9.2400e-004 9.6800e-004 tbiVehicleEF LH01 0.01 9.830e-003	tblVehicleEF	LHD1	0.24	0.07
tbVehideEF LHD1 0.02 0.01 tbVehideEF LHD1 0.14 0.17 tbVehideEF LHD1 0.81 0.60 tbVehideEF LHD1 2.14 0.88 tbVehideEF LHD1 9.25 9.36 tbVehideEF LHD1 596.36 619.96 tbVehideEF LHD1 29.33 9.88 tbVehideEF LHD1 0.09 0.08 tbVehideEF LHD1 0.92 0.28 tbVehideEF LHD1 0.92 0.28 tbVehideEF LHD1 0.01 0.01 tbVehideEF LHD1 0.92 0.28 tbVehideEF LHD1 0.92 0.28 tbVehideEF LHD1 0.01 0.01 tbVehideEF LHD1 0.01 0.01 tbVehideEF LHD1 0.92 0.28 tbVehideEF LHD1 0.91 0.91 tbVehideEF LHD1 0.9600e-004 2.1100e-004	tblVehicleEF	LHD1	4.9950e-003	4.5430e-003
tbl/ehicleEF LHD1 0.14 0.17 tbl/ehicleEF LHD1 0.81 0.60 tbl/ehicleEF LHD1 2.14 0.88 tbl/ehicleEF LHD1 9.25 9.36 tbl/ehicleEF LHD1 29.33 9.98 tbl/ehicleEF LHD1 29.33 9.98 tbl/ehicleEF LHD1 0.09 0.08 tbl/ehicleEF LHD1 0.92 0.28 tbl/ehicleEF LHD1 0.92 0.28 tbl/ehicleEF LHD1 0.01 0.01 tbl/ehicleEF LHD1 0.01 0.8330e-003 tbl/ehicleEF LHD1 0.01 8.8330e-003 tbl/ehicleEF LHD1	tblVehicleEF	LHD1	8.5850e-003	4.4280e-003
tbl/ehicleEF LHD1 0.81 0.60 tbl/ehicleEF LHD1 2.14 0.88 tbl/ehicleEF LHD1 9.25 9.36 tbl/ehicleEF LHD1 29.33 9.98 tbl/ehicleEF LHD1 29.33 9.98 tbl/ehicleEF LHD1 0.09 0.08 tbl/ehicleEF LHD1 0.92 0.28 tbl/ehicleEF LHD1 0.92 0.28 tbl/ehicleEF LHD1 0.01 0.01 tbl/ehicleEF LHD1 0.01 8.830e-003 tbl/ehicleEF LHD1 0.01 8.830e-003 tbl/ehicleEF LHD1 0.	tblVehicleEF	LHD1	0.02	0.01
tbl/vehicleEF LHD1 2.14 0.88 tbl/vehicleEF LHD1 9.25 9.36 tbl/vehicleEF LHD1 596.36 619.96 tbl/vehicleEF LHD1 29.33 9.98 tbl/vehicleEF LHD1 0.09 0.08 tbl/vehicleEF LHD1 0.92 0.28 tbl/vehicleEF LHD1 0.92 0.28 tbl/vehicleEF LHD1 9.8600e-004 1.0130e-003 tbl/vehicleEF LHD1 9.8600e-004 1.0130e-003 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 9.2400e-004 9.6900e-004 tbl/vehicleEF LHD1 9.2400e-004 9.6900e-004 tbl/vehicleEF LHD1 9.2400e-003 2.5170e-003 tbl/vehicleEF LHD1 9.2300e-003 2.5170e-003 tbl/vehicleEF LHD1 3.2380e-003	tblVehicleEF	LHD1	0.14	0.17
bi/VehicleEF LH01 9.25 9.36 bi/VehicleEF LH01 596.36 619.96 bi/VehicleEF LH01 29.33 9.98 tbi/VehicleEF LH01 0.09 0.08 tbi/VehicleEF LH01 1.89 1.37 tbi/VehicleEF LH01 0.92 0.28 tbi/VehicleEF LH01 0.92 0.28 tbi/VehicleEF LH01 0.01 0.01 tbi/VehicleEF LH01 7.9000e-004 2.1100e-004 tbi/VehicleEF LH01 2.5590e-003 2.5170e-003 tbi/VehicleEF LH01 0.01 9.8330e-003 tbi/VehicleEF LH01 0.01 9.8330e-003 tbi/VehicleEF LH01 0.01 9.8330e-003 <tdt< td=""><td>tblVehicleEF</td><td>LHD1</td><td>0.81</td><td>0.60</td></tdt<>	tblVehicleEF	LHD1	0.81	0.60
bl/VehicleEF LHD1 596.36 619.96 tbl/vehicleEF LHD1 29.33 9.98 tbl/vehicleEF LHD1 0.09 0.08 tbl/vehicleEF LHD1 1.89 1.37 tbl/vehicleEF LHD1 0.92 0.28 tbl/vehicleEF LHD1 0.92 0.28 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 9.5900e-004 2.1100e-004 tbl/vehicleEF LHD1 9.25590e-003 2.5170e-003 tbl/vehicleEF LHD1 7.2700e-004 1.9400e-004 tbl/vehicleEF LHD1 7.2700e-004 1.9400e-004 tbl/vehicleEF LHD1 0.01 9.6830e-003	tblVehicleEF	LHD1	2.14	0.88
tbl/ehicleEF LHD1 29.33 9.98 tbl/ehicleEF LHD1 0.09 0.08 tbl/ehicleEF LHD1 1.89 1.37 tbl/ehicleEF LHD1 0.92 0.28 tbl/ehicleEF LHD1 0.60 1.0130e-003 tbl/ehicleEF LHD1 0.01 0.01 tbl/ehicleEF LHD1 9.2400e-004 2.1100e-004 tbl/ehicleEF LHD1 9.2400e-004 9.6900e-004 tbl/ehicleEF LHD1 9.2400e-004 9.6900e-003 tbl/ehicleEF LHD1 9.2400e-004 9.6900e-003 tbl/ehicleEF LHD1 0.01 9.8330e-003 tbl/ehicleEF LHD1 0.01 9.8330e-003 tbl/ehicleEF LHD1 0.01 0.08	tblVehicleEF	LHD1	9.25	9.36
tblVehicleEF LHD1 0.09 0.08 tblVehicleEF LHD1 1.89 1.37 tblVehicleEF LHD1 0.92 0.28 tblVehicleEF LHD1 9.6600e-004 1.0130e-003 tblVehicleEF LHD1 9.6600e-004 1.0130e-003 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 7.900e-004 2.1100e-004 tblVehicleEF LHD1 9.2400e-004 9.6900e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 7.2700e-003 2.4970e-003 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.01 0.02 0.02 tblVehicleEF LHD1 0.02 0.02 0.02 tblVehicleEF <t< td=""><td>tblVehicleEF</td><td>LHD1</td><td>596.36</td><td>619.96</td></t<>	tblVehicleEF	LHD1	596.36	619.96
tblVehicleEF LHD1 1.89 1.37 tblVehicleEF LHD1 0.92 0.28 tblVehicleEF LHD1 9.6600e-004 1.0130e-003 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 7.9000e-004 2.1100e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.01 0.08 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.11 0.02 tblVehicleEF LHD1 0.02 0.02	tblVehicleEF	LHD1	29.33	9.98
tbl/VehicleEF LHD1 0.92 0.28 tbl/VehicleEF LHD1 9.6600e-004 1.0130e-003 tbl/VehicleEF LHD1 0.01 0.01 tbl/VehicleEF LHD1 0.01 0.01 tbl/VehicleEF LHD1 0.01 0.01 tbl/VehicleEF LHD1 0.01 0.01 tbl/VehicleEF LHD1 7.9000e-004 2.1100e-004 tbl/VehicleEF LHD1 9.2400e-004 9.6900e-004 tbl/VehicleEF LHD1 2.5590e-003 2.5170e-003 tbl/VehicleEF LHD1 0.01 9.8330e-003 tbl/VehicleEF LHD1 7.2700e-004 1.9400e-004 tbl/VehicleEF LHD1 7.2700e-003 2.4970e-003 tbl/VehicleEF LHD1 0.01 0.08 tbl/VehicleEF LHD1 0.02 0.02 tbl/VehicleEF LHD1 0.02 0.02 tbl/VehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.09	0.08
tbl/vehicleEF LHD1 9.6600e-004 1.0130e-003 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 0.01 0.01 tbl/vehicleEF LHD1 7.9000e-004 2.1100e-004 tbl/vehicleEF LHD1 9.2400e-004 9.6900e-004 tbl/vehicleEF LHD1 2.5590e-003 2.5170e-003 tbl/vehicleEF LHD1 0.01 9.8330e-003 tbl/vehicleEF LHD1 0.01 9.8330e-003 tbl/vehicleEF LHD1 3.2380e-003 2.4970e-003 tbl/vehicleEF LHD1 3.2380e-003 2.4970e-003 tbl/vehicleEF LHD1 0.01 0.08 tbl/vehicleEF LHD1 0.02 0.02 tbl/vehicleEF LHD1 0.02 0.02 tbl/vehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	1.89	1.37
tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 7.9000e-004 2.1100e-004 tblVehicleEF LHD1 9.2400e-004 9.6900e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 7.2700e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.92	0.28
tblVehicleEF LHD1 0.01 0.01 tblVehicleEF LHD1 7.9000e-004 2.1100e-004 tblVehicleEF LHD1 9.2400e-004 9.6900e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	9.6600e-004	1.0130e-003
tblVehicleEF LHD1 7.9000e-004 2.1100e-004 tblVehicleEF LHD1 9.2400e-004 9.6900e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF LHD1 9.2400e-004 9.6900e-004 tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF LHD1 2.5590e-003 2.5170e-003 tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	7.9000e-004	2.1100e-004
tblVehicleEF LHD1 0.01 9.8330e-003 tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	9.2400e-004	9.6900e-004
tblVehicleEF LHD1 7.2700e-004 1.9400e-004 tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	2.5590e-003	2.5170e-003
tblVehicleEF LHD1 3.2380e-003 2.4970e-003 tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.01	9.8330e-003
tblVehicleEF LHD1 0.11 0.08 tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	7.2700e-004	1.9400e-004
tblVehicleEF LHD1 0.02 0.02 tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	3.2380e-003	2.4970e-003
tblVehicleEF LHD1 1.6810e-003 1.3210e-003 tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF LHD1 0.07 0.05	tblVehicleEF	LHD1	0.02	0.02
L	tblVehicleEF	LHD1	1.6810e-003	1.3210e-003
	tblVehicleEF	LHD1	0.07	0.05
	tblVehicleEF	LHD1	0.33	0.47

tblVehicleEF	LHD1	0.23	0.07
tblVehicleEF	LHD1	9.2000e-005	9.0000e-005
tblVehicleEF	LHD1	5.8420e-003	6.0260e-003
tblVehicleEF	LHD1	3.3400e-004	9.9000e-005
tblVehicleEF	LHD1	3.2380e-003	2.4970e-003
tblVehicleEF	LHD1	0.11	0.08
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.6810e-003	1.3210e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.33	0.47
tblVehicleEF	LHD1	0.25	0.07
tblVehicleEF	LHD2	3.3070e-003	2.7700e-003
tblVehicleEF	LHD2	3.5370e-003	3.2640e-003
tblVehicleEF	LHD2	6.6670e-003	7.1780e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.48
tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.92
tblVehicleEF	LHD2	22.93	6.42
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.29	1.52
tblVehicleEF	LHD2	0.46	0.16
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005

tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	1.3090e-003	1.1190e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	7.0300e-004	6.1300e-004
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.19
tblVehicleEF	LHD2	0.09	0.04
tblVehicleEF	LHD2	1.4000e-004	1.4200e-004
tblVehicleEF	LHD2	5.7620e-003	5.9160e-003
tblVehicleEF	LHD2	2.4800e-004	6.4000e-005
tblVehicleEF	LHD2	1.3090e-003	1.1190e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	7.0300e-004	6.1300e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.19
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	2.7770e-003
tblVehicleEF	LHD2	3.5730e-003	3.2860e-003
tblVehicleEF	LHD2	6.4430e-003	6.9030e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.45
tblVehicleEF	LHD2	0.98	0.45
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tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.93
tblVehicleEF	LHD2	22.93	6.38
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.22	1.43
tblVehicleEF	LHD2	0.45	0.15
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005
tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	2.4680e-003	1.9920e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	1.3130e-003	1.1680e-003
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.20
tblVehicleEF	LHD2	0.09	0.03
tblVehicleEF	LHD2	1.4000e-004	1.4200e-004
tblVehicleEF	LHD2	5.7620e-003	5.9160e-003
tblVehicleEF	LHD2	2.4700e-004	6.3000e-005
tblVehicleEF	LHD2	2.4680e-003	1.9920e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
			1

tblVehicleEF	LHD2	1.3130e-003	1.1680e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.07	0.20
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	LHD2	3.3070e-003	2.7710e-003
tblVehicleEF	LHD2	3.5300e-003	3.2670e-003
tblVehicleEF	LHD2	6.7050e-003	7.1290e-003
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.40	0.44
tblVehicleEF	LHD2	1.03	0.47
tblVehicleEF	LHD2	14.34	14.92
tblVehicleEF	LHD2	592.89	614.92
tblVehicleEF	LHD2	22.93	6.42
tblVehicleEF	LHD2	0.11	0.12
tblVehicleEF	LHD2	1.28	1.49
tblVehicleEF	LHD2	0.46	0.16
tblVehicleEF	LHD2	1.2850e-003	1.5130e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.5700e-004	9.8000e-005
tblVehicleEF	LHD2	1.2290e-003	1.4470e-003
tblVehicleEF	LHD2	2.7020e-003	2.7370e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	3.2800e-004	9.1000e-005
tblVehicleEF	LHD2	1.0230e-003	1.1350e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.01

tblVehicleEF			
	LHD2	5.9800e-004	6.3500e-004
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.08	0.21
tblVehicleEF	LHD2	0.09	0.03
tblVehicleEF	LHD2	1.4000e-004	1.4200e-004
tblVehicleEF	LHD2	5.7620e-003	5.9160e-003
tblVehicleEF	LHD2	2.4800e-004	6.3000e-005
tblVehicleEF	LHD2	1.0230e-003	1.1350e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	5.9800e-004	6.3500e-004
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	0.08	0.21
tblVehicleEF	LHD2	0.10	0.04
tblVehicleEF	MCY	0.43	0.31
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	МСҮ	18.81	18.85
tblVehicleEF	МСҮ	9.70	8.64
tblVehicleEF	MCY	166.71	207.60
tblVehicleEF	MCY	45.36	60.36
tblVehicleEF	MCY	1.12	1.13
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	МСҮ	1.8630e-003	1.7970e-003
tblVehicleEF	МСҮ	3.2830e-003	2.7750e-003
tblVehicleEF	МСҮ	1.7410e-003	1.6800e-003
tblVehicleEF	МСҮ	3.0870e-003	2.6090e-003
tblVehicleEF	МСҮ	1.69	1.43

tblVehicleEF	MCY	0.83	0.79
tblVehicleEF	MCY	0.92	0.76
tblVehicleEF	MCY	2.11	2.11
tblVehicleEF	MCY	0.55	1.77
tblVehicleEF	MCY	2.05	1.83
tblVehicleEF	MCY	2.0360e-003	2.0540e-003
tblVehicleEF	MCY	6.7200e-004	5.9700e-004
tblVehicleEF	MCY	1.69	1.43
tblVehicleEF	MCY	0.83	0.79
tblVehicleEF	MCY	0.92	0.76
tblVehicleEF	MCY	2.61	2.61
tblVehicleEF	MCY	0.55	1.77
tblVehicleEF	MCY	2.23	2.00
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	MCY	0.13	0.21
tblVehicleEF	MCY	19.51	18.83
tblVehicleEF	MCY	9.10	7.90
tblVehicleEF	MCY	166.71	207.41
tblVehicleEF	MCY	45.36	58.44
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	1.8630e-003	1.7970e-003
tblVehicleEF	MCY	3.2830e-003	2.7750e-003
tblVehicleEF	MCY	1.7410e-003	1.6800e-003
tblVehicleEF	MCY	3.0870e-003	2.6090e-003
tblVehicleEF	MCY	3.35	2.75
tblVehicleEF	MCY	1.23	1.09
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tblVehicleEF	МСҮ	2.09	1.72
tblVehicleEF	MCY	2.09	2.07
tblVehicleEF	MCY	0.55	1.74
tblVehicleEF	MCY	1.84	1.61
tblVehicleEF	MCY	2.0460e-003	2.0530e-003
tblVehicleEF	MCY	6.5600e-004	5.7800e-004
tblVehicleEF	MCY	3.35	2.75
tblVehicleEF	MCY	1.23	1.09
tblVehicleEF	MCY	2.09	1.72
tblVehicleEF	MCY	2.59	2.56
tblVehicleEF	MCY	0.55	1.74
tblVehicleEF	MCY	2.00	1.75
tblVehicleEF	MCY	0.42	0.31
tblVehicleEF	MCY	0.15	0.24
tblVehicleEF	МСҮ	18.37	18.30
tblVehicleEF	МСҮ	9.67	8.43
tblVehicleEF	МСҮ	166.71	206.64
tblVehicleEF	MCY	45.36	59.88
tblVehicleEF	MCY	1.12	1.09
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	1.8630e-003	1.7970e-003
tblVehicleEF	MCY	3.2830e-003	2.7750e-003
tblVehicleEF	MCY	1.7410e-003	1.6800e-003
tblVehicleEF	MCY	3.0870e-003	2.6090e-003
tblVehicleEF	MCY	1.59	1.64
tblVehicleEF	MCY	1.02	1.05
tblVehicleEF	MCY	0.73	0.76
			1

tblVehicleEF	МСҮ	2.11	2.09
tblVehicleEF	MCY	0.63	2.02
tblVehicleEF	MCY	2.06	1.79
tblVehicleEF	МСҮ	2.0290e-003	2.0450e-003
tblVehicleEF	MCY	6.7200e-004	5.9300e-004
tblVehicleEF	MCY	1.59	1.64
tblVehicleEF	MCY	1.02	1.05
tblVehicleEF	MCY	0.73	0.76
tblVehicleEF	MCY	2.61	2.59
tblVehicleEF	MCY	0.63	2.02
tblVehicleEF	MCY	2.24	1.95
tblVehicleEF	MDV	9.8990e-003	4.1640e-003
tblVehicleEF	MDV	0.01	0.08
tblVehicleEF	MDV	1.15	0.92
tblVehicleEF	MDV	2.62	2.99
tblVehicleEF	MDV	458.82	396.16
tblVehicleEF	MDV	104.21	84.06
tblVehicleEF	MDV	0.13	0.09
tblVehicleEF	MDV	0.25	0.33
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.19	0.15
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.02	0.02
			1

tblVehicleEF	MDV	0.11	0.46
tblVehicleEF	MDV	0.20	0.38
tblVehicleEF	MDV	4.5960e-003	3.8690e-003
tblVehicleEF	MDV	1.0880e-003	8.2200e-004
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.19	0.15
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.02
tblVehicleEF	MDV	0.11	0.46
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	MDV	0.01	4.6800e-003
tblVehicleEF	MDV	0.01	0.07
tblVehicleEF	MDV	1.41	1.09
tblVehicleEF	MDV	2.31	2.49
tblVehicleEF	MDV	498.05	417.66
tblVehicleEF	MDV	104.21	83.09
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.24	0.31
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.22	0.17
tblVehicleEF	MDV	0.16	0.17
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.11	0.45
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tblVehicleEF	MDV	0.17	0.32
tblVehicleEF	MDV	4.9910e-003	4.0790e-003
tblVehicleEF	MDV	1.0820e-003	8.1200e-004
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.22	0.17
tblVehicleEF	MDV	0.16	0.17
tblVehicleEF	MDV	0.04	0.03
tblVehicleEF	MDV	0.11	0.45
tblVehicleEF	MDV	0.19	0.35
tblVehicleEF	MDV	9.5100e-003	4.0920e-003
tblVehicleEF	MDV	0.02	0.08
tblVehicleEF	MDV	1.08	0.88
tblVehicleEF	MDV	2.68	2.97
tblVehicleEF	MDV	447.05	392.53
tblVehicleEF	MDV	104.21	84.03
tblVehicleEF	MDV	0.13	0.08
tblVehicleEF	MDV	0.25	0.33
tblVehicleEF	MDV	1.6580e-003	1.4100e-003
tblVehicleEF	MDV	2.3780e-003	1.8510e-003
tblVehicleEF	MDV	1.5280e-003	1.3010e-003
tblVehicleEF	MDV	2.1870e-003	1.7020e-003
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.20	0.16
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.13	0.52
tblVehicleEF	MDV	0.20	0.38
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tblVehicleEF	MDV	4.4770e-003	3.8330e-003
tblVehicleEF	MDV	1.0890e-003	8.2100e-004
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.20	0.16
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.03	0.02
tblVehicleEF	MDV	0.13	0.52
tblVehicleEF	MDV	0.22	0.41
tblVehicleEF	МН	0.02	3.2740e-003
tblVehicleEF	МН	0.02	0.00
tblVehicleEF	МН	2.00	0.33
tblVehicleEF	МН	5.24	0.00
tblVehicleEF	МН	995.46	929.33
tblVehicleEF	МН	57.13	0.00
tblVehicleEF	МН	1.48	4.27
tblVehicleEF	МН	0.79	0.00
tblVehicleEF	МН	0.01	0.02
tblVehicleEF	МН	0.04	0.14
tblVehicleEF	МН	9.7800e-004	0.00
tblVehicleEF	МН	3.2460e-003	4.0000e-003
tblVehicleEF	МН	0.04	0.13
tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	1.38	0.00
tblVehicleEF	МН	0.08	0.00
tblVehicleEF	МН	0.49	0.00
tblVehicleEF	МН	0.07	0.07
tblVehicleEF	МН	0.02	0.00
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tblVehicleEF	МН	0.31	0.00
tblVehicleEF	МН	9.8680e-003	8.7850e-003
tblVehicleEF	МН	6.6300e-004	0.00
tblVehicleEF	МН	1.38	0.00
tblVehicleEF	МН	0.08	0.00
tblVehicleEF	MH	0.49	0.00
tblVehicleEF	MH	0.10	0.08
tblVehicleEF	MH	0.02	0.00
tblVehicleEF	MH	0.34	0.00
tblVehicleEF	MH	0.02	3.2740e-003
tblVehicleEF	MH	0.02	0.00
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tblVehicleEF	MH	4.88	0.00
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tblVehicleEF	MH	57.13	0.00
tblVehicleEF	MH	1.37	4.03
tblVehicleEF	MH	0.76	0.00
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.04	0.14
tblVehicleEF	MH	9.7800e-004	0.00
tblVehicleEF	MH	3.2460e-003	4.0000e-003
tblVehicleEF	МН	0.04	0.13
tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	2.52	0.00
tblVehicleEF	MH	0.09	0.00
tblVehicleEF	MH	0.94	0.00
tblVehicleEF	МН	0.08	0.07

tblVehicleEF	МН	0.02	0.00
tblVehicleEF	МН	0.30	0.00
tblVehicleEF	МН	9.8690e-003	8.7850e-003
tblVehicleEF	МН	6.5700e-004	0.00
tblVehicleEF	МН	2.52	0.00
tblVehicleEF	МН	0.09	0.00
tblVehicleEF	МН	0.94	0.00
tblVehicleEF	МН	0.10	0.08
tblVehicleEF	МН	0.02	0.00
tblVehicleEF	МН	0.32	0.00
tblVehicleEF	МН	0.02	3.2740e-003
tblVehicleEF	МН	0.02	0.00
tblVehicleEF	МН	1.99	0.33
tblVehicleEF	МН	5.28	0.00
tblVehicleEF	МН	995.46	929.33
tblVehicleEF	МН	57.13	0.00
tblVehicleEF	МН	1.46	4.20
tblVehicleEF	МН	0.79	0.00
tblVehicleEF	МН	0.01	0.02
tblVehicleEF	МН	0.04	0.14
tblVehicleEF	МН	9.7800e-004	0.00
tblVehicleEF	МН	3.2460e-003	4.0000e-003
tblVehicleEF	МН	0.04	0.13
tblVehicleEF	МН	8.9900e-004	0.00
tblVehicleEF	МН	1.38	0.00
tblVehicleEF	МН	0.09	0.00
tblVehicleEF	МН	0.47	0.00

tblVehicleEF	МН	0.07	0.07
tblVehicleEF	МН	0.03	0.00
tblVehicleEF	МН	0.31	0.00
tblVehicleEF	МН	9.8680e-003	8.7850e-003
tblVehicleEF	МН	6.6300e-004	0.00
tblVehicleEF	МН	1.38	0.00
tblVehicleEF	МН	0.09	0.00
tblVehicleEF	МН	0.47	0.00
tblVehicleEF	МН	0.10	0.08
tblVehicleEF	МН	0.03	0.00
tblVehicleEF	МН	0.34	0.00
tblVehicleEF	MHD	0.02	2.7550e-003
tblVehicleEF	MHD	2.5650e-003	8.7300e-004
tblVehicleEF	MHD	0.05	7.0300e-003
tblVehicleEF	MHD	0.32	0.33
tblVehicleEF	MHD	0.21	0.12
tblVehicleEF	MHD	5.07	0.81
tblVehicleEF	MHD	148.43	67.29
tblVehicleEF	MHD	1,056.49	911.02
tblVehicleEF	MHD	54.56	7.21
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.47	0.91
tblVehicleEF	MHD	11.43	1.80
tblVehicleEF	MHD	1.3500e-004	4.3400e-004
tblVehicleEF	MHD	2.6660e-003	9.4670e-003
tblVehicleEF	MHD	7.3000e-004	8.3000e-005
tblVehicleEF	MHD	1.2900e-004	4.1500e-004

tblVehicleEF	MHD	2.5470e-003	9.0550e-003
tblVehicleEF	MHD	6.7100e-004	7.6000e-005
tblVehicleEF	MHD	1.5020e-003	4.1800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.6500e-004	2.2800e-004
tblVehicleEF	MHD	0.02	9.5450e-003
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.31	0.04
tblVehicleEF	MHD	1.4270e-003	6.3800e-004
tblVehicleEF	MHD	0.01	8.6560e-003
tblVehicleEF	MHD	6.3400e-004	7.1000e-005
tblVehicleEF	MHD	1.5020e-003	4.1800e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	7.6500e-004	2.2800e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.34	0.04
tblVehicleEF	MHD	0.02	2.6270e-003
tblVehicleEF	MHD	2.5980e-003	8.8800e-004
tblVehicleEF	MHD	0.05	6.7570e-003
tblVehicleEF	MHD	0.23	0.29
tblVehicleEF	MHD	0.21	0.12
tblVehicleEF	MHD	4.84	0.76
tblVehicleEF	MHD	157.22	67.24
tblVehicleEF	MHD	1,056.49	911.02
			1

tblVehicleEF	MHD	54.56	7.14
tblVehicleEF	MHD	0.42	0.39
tblVehicleEF	MHD	0.44	0.86
tblVehicleEF	MHD	11.41	1.80
tblVehicleEF	MHD	1.1400e-004	3.6900e-004
tblVehicleEF	MHD	2.6660e-003	9.4670e-003
tblVehicleEF	MHD	7.3000e-004	8.3000e-005
tblVehicleEF	MHD	1.0900e-004	3.5300e-004
tblVehicleEF	MHD	2.5470e-003	9.0550e-003
tblVehicleEF	MHD	6.7100e-004	7.6000e-005
tblVehicleEF	MHD	2.8970e-003	7.5100e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.02	0.01
tblVehicleEF	MHD	1.4710e-003	4.4600e-004
tblVehicleEF	MHD	0.02	9.6090e-003
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.30	0.04
tblVehicleEF	MHD	1.5100e-003	6.3800e-004
tblVehicleEF	MHD	0.01	8.6560e-003
tblVehicleEF	MHD	6.3000e-004	7.1000e-005
tblVehicleEF	MHD	2.8970e-003	7.5100e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	1.4710e-003	4.4600e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.07
tblVehicleEF	MHD	0.33	0.04

tblVehicleEF	MHD	0.02	2.9460e-003
tblVehicleEF	MHD	2.5410e-003	8.7400e-004
tblVehicleEF	MHD	0.05	6.9640e-003
tblVehicleEF	MHD	0.44	0.39
tblVehicleEF	MHD	0.21	0.12
tblVehicleEF	MHD	5.15	0.80
tblVehicleEF	MHD	136.28	67.35
tblVehicleEF	MHD	1,056.49	911.02
tblVehicleEF	MHD	54.56	7.20
tblVehicleEF	MHD	0.39	0.41
tblVehicleEF	MHD	0.46	0.89
tblVehicleEF	MHD	11.44	1.80
tblVehicleEF	MHD	1.6400e-004	5.2400e-004
tblVehicleEF	MHD	2.6660e-003	9.4670e-003
tblVehicleEF	MHD	7.3000e-004	8.3000e-005
tblVehicleEF	MHD	1.5700e-004	5.0100e-004
tblVehicleEF	MHD	2.5470e-003	9.0550e-003
tblVehicleEF	MHD	6.7100e-004	7.6000e-005
tblVehicleEF	MHD	1.0970e-003	4.3600e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.9600e-004	2.3900e-004
tblVehicleEF	MHD	0.02	9.5510e-003
tblVehicleEF	MHD	0.02	0.08
tblVehicleEF	MHD	0.31	0.04
tblVehicleEF	MHD	1.3130e-003	6.3800e-004
tblVehicleEF	MHD	0.01	8.6560e-003
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tblVehicleEF	MHD	6.3600e-004	7.1000e-005
tblVehicleEF	MHD	1.0970e-003	4.3600e-004
tblVehicleEF	MHD	0.04	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	5.9600e-004	2.3900e-004
tblVehicleEF	MHD	0.03	0.01
tblVehicleEF	MHD	0.02	0.08
tblVehicleEF	MHD	0.34	0.04
tblVehicleEF	OBUS	0.01	8.5220e-003
tblVehicleEF	OBUS	5.6790e-003	5.4050e-003
tblVehicleEF	OBUS	0.03	0.02
tblVehicleEF	OBUS	0.25	0.49
tblVehicleEF	OBUS	0.39	0.70
tblVehicleEF	OBUS	5.52	2.68
tblVehicleEF	OBUS	68.59	64.37
tblVehicleEF	OBUS	1,085.33	1,335.49
tblVehicleEF	OBUS	69.49	21.28
tblVehicleEF	OBUS	0.13	0.23
tblVehicleEF	OBUS	0.35	0.91
tblVehicleEF	OBUS	2.07	0.69
tblVehicleEF	OBUS	1.2000e-005	7.5000e-005
tblVehicleEF	OBUS	1.9500e-003	8.4680e-003
tblVehicleEF	OBUS	8.7100e-004	2.1800e-004
tblVehicleEF	OBUS	1.1000e-005	7.2000e-005
tblVehicleEF	OBUS	1.8490e-003	8.0880e-003
tblVehicleEF	OBUS	8.0000e-004	2.0100e-004
tblVehicleEF	OBUS	2.0910e-003	2.6670e-003

tblVehicleEFOBUS0.02tblVehicleEFOBUS0.05tblVehicleEFOBUS0.34tblVehicleEFOBUS6.6700e-0046tblVehicleEFOBUS0.016tblVehicleEFOBUS0.012	0.03 0.05 .1770e-003 0.03 0.29 0.13 .1500e-004 0.01 .1100e-004 6670e-003
tblVehicleEFOBUS9.0600e-0041tblVehicleEFOBUS0.021tblVehicleEFOBUS0.051tblVehicleEFOBUS0.341tblVehicleEFOBUS6.6700e-0046tblVehicleEFOBUS0.011tblVehicleEFOBUS0.012tblVehicleEFOBUS7.9200e-0042tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.021	.1770e-003 0.03 0.29 0.13 .1500e-004 0.01 .1100e-004
tblVehicleEFOBUS0.02tblVehicleEFOBUS0.05tblVehicleEFOBUS0.34tblVehicleEFOBUS6.6700e-004tblVehicleEFOBUS0.01tblVehicleEFOBUS0.01tblVehicleEFOBUS7.9200e-004tblVehicleEFOBUS2.0910e-003tblVehicleEFOBUS0.02	0.03 0.29 0.13 .1500e-004 0.01 .1100e-004
tblVehicleEFOBUS0.05tblVehicleEFOBUS0.34tblVehicleEFOBUS6.6700e-0046tblVehicleEFOBUS0.01tblVehicleEFOBUS7.9200e-0042tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.020.02	0.29 0.13 .1500e-004 0.01 .1100e-004
tblVehicleEFOBUS0.34tblVehicleEFOBUS6.6700e-0046tblVehicleEFOBUS0.016tblVehicleEFOBUS7.9200e-0042tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.021000	0.13 .1500e-004 0.01 .1100e-004
tblVehicleEFOBUS6.6700e-0046tblVehicleEFOBUS0.01tblVehicleEFOBUS7.9200e-0042tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.022	.1500e-004 0.01 .1100e-004
tblVehicleEFOBUS0.01tblVehicleEFOBUS7.9200e-0042tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.022	0.01 .1100e-004
tblVehicleEF OBUS 7.9200e-004 2 tblVehicleEF OBUS 2.0910e-003 2 tblVehicleEF OBUS 0.02	.1100e-004
tblVehicleEFOBUS2.0910e-0032tblVehicleEFOBUS0.02	
tblVehicleEF OBUS 0.02	.6670e-003
Li.	
tblVehicleEF OBUS 0.04	0.03
	0.06
tblVehicleEF OBUS 9.0600e-004 1	.1770e-003
tblVehicleEF OBUS 0.03	0.04
tblVehicleEF OBUS 0.05	0.29
tblVehicleEF OBUS 0.38	0.14
tblVehicleEF OBUS 0.01 8	.5920e-003
tblVehicleEF OBUS 5.7930e-003 5.	.5390e-003
tblVehicleEF OBUS 0.03	0.02
tblVehicleEF OBUS 0.24	0.48
tblVehicleEF OBUS 0.40	0.72
tblVehicleEF OBUS 5.16	2.49
tblVehicleEF OBUS 71.65	63.70
tblVehicleEF OBUS 1,085.33	1,335.52
tblVehicleEF OBUS 69.49	20.96
tblVehicleEF OBUS 0.14	0.21
tblVehicleEF OBUS 0.33	0.84

blVehicleEF OBUS 2.03 0.67 blVehicleEF OBUS 1.0000e-005 6.7000e-005 blVehicleEF OBUS 1.9500e-003 8.4680e-003 blVehicleEF OBUS 8.7100e-004 2.1800e-004 blVehicleEF OBUS 1.0000e-005 6.4000e-005 blVehicleEF OBUS 1.8490e-003 8.0880e-003 blVehicleEF OBUS 1.8490e-003 8.0880e-003 blVehicleEF OBUS 1.8490e-003 8.0880e-003 blVehicleEF OBUS 8.0000e-004 2.0100e-004 blVehicleEF OBUS 3.8840e-003 4.6970e-003 blVehicleEF OBUS 0.02 0.03 blVehicleEF OBUS 0.03 0.05 blVehicleEF OBUS 0.02 0.03 blVehicleEF OBUS 0.02 0.03 blVehicleEF OBUS 0.05 0.29 blVehicleEF OBUS 0.05 0.29 blVehicleEF OBUS 0.01		
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tblVehicleEF OBUS 8.7100e-004 2.1800e-004 tblVehicleEF OBUS 1.0000e-005 6.4000e-005 tblVehicleEF OBUS 1.8490e-003 8.0880e-003 tblVehicleEF OBUS 8.0000e-004 2.0100e-004 tblVehicleEF OBUS 8.0000e-003 4.6970e-003 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.05 0.29 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 0.33 0.12 <t< td=""><td></td></t<>		
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tblVehicleEF OBUS 8.0000e-004 2.0100e-004 tblVehicleEF OBUS 3.8840e-003 4.6970e-003 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 0.03 0.05 tblVehicleEF OBUS 1.7290e-003 2.2650e-003 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.02 0.03 tblVehicleEF OBUS 0.05 0.29 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 0.01 0.01 tblVehicleEF OBUS 0.01 0.01 tblVehicleEF OBUS 7.8600e-004 2.0700e-004 tblVehicleEF OBUS 3.8840e-003 4.6970e-003		
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tblVehicleEF OBUS 0.05 0.29 tblVehicleEF OBUS 0.33 0.12 tblVehicleEF OBUS 6.9600e-004 6.0900e-004 tblVehicleEF OBUS 0.01 0.01 tblVehicleEF OBUS 7.8600e-004 2.0700e-004 tblVehicleEF OBUS 3.8840e-003 4.6970e-003		
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tblVehicleEF OBUS 0.01 0.01 tblVehicleEF OBUS 7.8600e-004 2.0700e-004 tblVehicleEF OBUS 3.8840e-003 4.6970e-003		
tblVehicleEF OBUS 7.8600e-004 2.0700e-004 tblVehicleEF OBUS 3.8840e-003 4.6970e-003	6.0900e-004	
tblVehicleEF OBUS 3.8840e-003 4.6970e-003		
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tblVehicleEF OBUS 0.02 0.03		
tblVehicleEF OBUS 0.04 0.06		
tblVehicleEF OBUS 1.7290e-003 2.2650e-003		
tblVehicleEF OBUS 0.03 0.04		
tblVehicleEF OBUS 0.05 0.29		
tblVehicleEF OBUS 0.36 0.13		
tblVehicleEF OBUS 0.01 8.4630e-003		
tblVehicleEF OBUS 5.6610e-003 5.4160e-003		
tblVehicleEF OBUS 0.03 0.02		

tblVehicleEF	OBUS	0.25	0.49
tblVehicleEF	OBUS	0.39	0.70
tblVehicleEF	OBUS	5.57	2.67
tblVehicleEF	OBUS	64.36	65.29
tblVehicleEF	OBUS	1,085.33	1,335.50
tblVehicleEF	OBUS	69.49	21.26
tblVehicleEF	OBUS	0.13	0.24
tblVehicleEF	OBUS	0.35	0.89
tblVehicleEF	OBUS	2.06	0.68
tblVehicleEF	OBUS	1.5000e-005	8.7000e-005
tblVehicleEF	OBUS	1.9500e-003	8.4680e-003
tblVehicleEF	OBUS	8.7100e-004	2.1800e-004
tblVehicleEF	OBUS	1.4000e-005	8.3000e-005
tblVehicleEF	OBUS	1.8490e-003	8.0880e-003
tblVehicleEF	OBUS	8.0000e-004	2.0100e-004
tblVehicleEF	OBUS	1.7990e-003	2.7830e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	8.3400e-004	1.2510e-003
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	0.05	0.31
tblVehicleEF	OBUS	0.35	0.13
tblVehicleEF	OBUS	6.2600e-004	6.2400e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.9300e-004	2.1000e-004
tblVehicleEF	OBUS	1.7990e-003	2.7830e-003
tblVehicleEF	OBUS	0.02	0.03

tblVehicleEF	OBUS	0.05	0.06	
tblVehicleEF	OBUS	8.3400e-004	1.2510e-003	
tblVehicleEF	OBUS	0.03	0.04	
tblVehicleEF	OBUS	0.05	0.31	
tblVehicleEF	OBUS	0.38	0.14	
tblVehicleEF	SBUS	0.82	0.09	
tblVehicleEF	SBUS	9.5650e-003	6.6030e-003	
tblVehicleEF	SBUS	0.06	8.0990e-003	
tblVehicleEF	SBUS	7.84	3.43	
tblVehicleEF	SBUS	0.57	0.55	
tblVehicleEF	SBUS	6.44	1.08	
tblVehicleEF	SBUS	1,128.57	369.74	
tblVehicleEF	SBUS	1,093.03	1,096.55	
tblVehicleEF	SBUS	55.12	6.92	
tblVehicleEF	SBUS	8.81	3.32	
tblVehicleEF	SBUS	3.97	4.42	
tblVehicleEF	SBUS	BUS 12.20		
tblVehicleEF	SBUS	8.4250e-003	3.3040e-003	
tblVehicleEF	SBUS	0.01	0.01	
tblVehicleEF	SBUS	0.02	0.03	
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005	
tblVehicleEF	SBUS	8.0610e-003	3.1610e-003	
tblVehicleEF	SBUS	S 2.6870e-003		
tblVehicleEF	SBUS	0.02	0.02	
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005	
tblVehicleEF	SBUS	5.0680e-003	1.5760e-003	
tblVehicleEF	SBUS	0.03	0.01	
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tblVehicleEF	SBUS	0.93	0.41		
tblVehicleEF	SBUS	2.4310e-003	7.9200e-004		
tblVehicleEF	SBUS	0.10	0.09		
tblVehicleEF	SBUS	0.02	0.07		
tblVehicleEF	SBUS	0.36	0.05		
tblVehicleEF	SBUS	0.01	3.5360e-003		
tblVehicleEF	SBUS	0.01	0.01		
tblVehicleEF	SBUS	6.6300e-004	6.9000e-005		
tblVehicleEF	SBUS	5.0680e-003	1.5760e-003		
tblVehicleEF	SBUS	0.03	0.01		
tblVehicleEF	SBUS	1.34	0.59		
tblVehicleEF	SBUS	2.4310e-003	7.9200e-004		
tblVehicleEF	SBUS	0.12	0.11		
tblVehicleEF	SBUS	SBUS 0.02			
tblVehicleEF	SBUS	0.05			
tblVehicleEF	VehicleEF SBUS 0.82				
tblVehicleEF	SBUS	6.6870e-003			
tblVehicleEF	SBUS	0.05	6.7520e-003		
tblVehicleEF	SBUS	7.74	3.39		
tblVehicleEF	SBUS	0.58	0.56		
tblVehicleEF	SBUS	4.67	0.77		
tblVehicleEF	SBUS	1,179.47	378.98		
tblVehicleEF	SBUS	1,093.03	1,096.56		
tblVehicleEF	SBUS	55.12	6.42		
tblVehicleEF	SBUS	9.10	3.40		
tblVehicleEF	SBUS	3.73	4.16		
tblVehicleEF	SBUS	12.17	0.77		

tblVehicleEF	SBUS	7.1020e-003	2.7930e-003	
tblVehicleEF	SBUS	0.01	0.01	
tblVehicleEF	SBUS	0.02	0.03	
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005	
tblVehicleEF	SBUS	6.7950e-003	2.6720e-003	
tblVehicleEF	SBUS	2.6870e-003	2.6500e-003	
tblVehicleEF	SBUS	0.02	0.02	
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005	
tblVehicleEF	SBUS	9.1290e-003	2.7600e-003	
tblVehicleEF	SBUS	0.04	0.01	
tblVehicleEF	SBUS	0.92	0.41	
tblVehicleEF	SBUS	4.4980e-003	1.4670e-003	
tblVehicleEF	SBUS	0.10	0.09	
tblVehicleEF	SBUS	0.02	0.06	
tblVehicleEF	SBUS	0.30	0.04	
tblVehicleEF	SBUS	0.01	3.6240e-003	
tblVehicleEF	SBUS	0.01	0.01	
tblVehicleEF	SBUS	6.3300e-004	6.3000e-005	
tblVehicleEF	SBUS	9.1290e-003	2.7600e-003	
tblVehicleEF	SBUS	0.04	0.01	
tblVehicleEF	SBUS	1.34	0.59	
tblVehicleEF	SBUS	4.4980e-003	1.4670e-003	
tblVehicleEF	SBUS	0.12	0.11	
tblVehicleEF	SBUS	0.02	0.06	
tblVehicleEF	SBUS	0.33	0.04	
tblVehicleEF	SBUS	0.82	0.09	
tblVehicleEF	SBUS	9.5210e-003	6.6020e-003	

tblVehicleEF	SBUS	0.06	8.2440e-003	
tblVehicleEF	SBUS	8.00	3.48	
tblVehicleEF	SBUS	0.57	0.55	
tblVehicleEF	SBUS	6.79	1.10	
tblVehicleEF	SBUS	1,058.28	356.98	
tblVehicleEF	SBUS	1,093.03	1,096.55	
tblVehicleEF	SBUS	55.12	6.96	
tblVehicleEF	SBUS	8.43	3.21	
tblVehicleEF	SBUS	3.93	4.35	
tblVehicleEF	SBUS	12.21	0.78	
tblVehicleEF	SBUS	0.01	4.0110e-003	
tblVehicleEF	SBUS	0.01	0.01	
tblVehicleEF	SBUS	0.02	0.03	
tblVehicleEF	SBUS	5.0000e-004	4.8000e-005	
tblVehicleEF	SBUS	SBUS 9.8080e-003		
tblVehicleEF	SBUS	2.6870e-003	2.6500e-003	
tblVehicleEF	SBUS	0.02	0.02	
tblVehicleEF	SBUS	4.6000e-004	4.4000e-005	
tblVehicleEF	SBUS	4.3640e-003	1.4840e-003	
tblVehicleEF	SBUS	0.03	0.01	
tblVehicleEF	SBUS	0.93	0.41	
tblVehicleEF	SBUS	2.3310e-003	8.1800e-004	
tblVehicleEF	SBUS	0.10	0.09	
tblVehicleEF	SBUS	0.02	0.08	
tblVehicleEF	SBUS	0.37	0.05	
tblVehicleEF	SBUS	3.4160e-003		
tblVehicleEF	SBUS	0.01	0.01	
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tblVehicleEF	SBUS	6.6900e-004	6.9000e-005	
tblVehicleEF	SBUS	4.3640e-003	1.4840e-003	
tblVehicleEF	SBUS	0.03	0.01	
tblVehicleEF	SBUS	1.34	0.59	
tblVehicleEF	SBUS	2.3310e-003	8.1800e-004	
tblVehicleEF	SBUS	0.12	0.11	
tblVehicleEF	SBUS	0.02	0.08	
tblVehicleEF	SBUS	0.40	0.05	
tblVehicleEF	UBUS	1.36	3.04	
tblVehicleEF	UBUS	0.08	0.02	
tblVehicleEF	UBUS	7.52	23.60	
tblVehicleEF	UBUS	13.83	1.86	
tblVehicleEF	UBUS	1,788.21	1,635.62	
tblVehicleEF	UBUS	153.17	22.96	
tblVehicleEF	UBUS	3.79	0.30	
tblVehicleEF	UBUS	12.24	0.22	
tblVehicleEF	UBUS	0.49	0.09	
tblVehicleEF	UBUS	0.01	0.02	
tblVehicleEF	UBUS	0.04	2.1820e-003	
tblVehicleEF	UBUS	1.4880e-003	2.2400e-004	
tblVehicleEF	UBUS	0.21	0.04	
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003	
tblVehicleEF	UBUS	0.04	2.0670e-003	
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004	
tblVehicleEF	UBUS	9.0420e-003	2.8050e-003	
tblVehicleEF	UBUS	0.10	0.02	
tblVehicleEF	UBUS	4.5390e-003	1.1470e-003	

tblVehicleEF	UBUS	0.42	0.05	
tblVehicleEF	UBUS	0.02	0.08	
tblVehicleEF	UBUS	1.09	0.10	
tblVehicleEF	UBUS	9.5090e-003	6.3200e-003	
tblVehicleEF	UBUS	1.7820e-003	2.2700e-004	
tblVehicleEF	UBUS	9.0420e-003	2.8050e-003	
tblVehicleEF	UBUS	0.10	0.02	
tblVehicleEF	UBUS	4.5390e-003	1.1470e-003	
tblVehicleEF	UBUS	1.82	3.11	
tblVehicleEF	UBUS	0.02	0.08	
tblVehicleEF	UBUS	1.19	0.10	
tblVehicleEF	UBUS	1.36	3.04	
tblVehicleEF	UBUS	0.07	0.02	
tblVehicleEF	UBUS	7.58	23.60	
tblVehicleEF	UBUS	11.85	1.58	
tblVehicleEF	UBUS	1,788.21	1,635.63	
tblVehicleEF	UBUS	153.17	22.49	
tblVehicleEF	UBUS	3.53	0.30	
tblVehicleEF	UBUS	12.16	0.21	
tblVehicleEF	UBUS	0.49	0.09	
tblVehicleEF	UBUS	0.01	0.02	
tblVehicleEF	UBUS	0.04	2.1820e-003	
tblVehicleEF	UBUS	1.4880e-003	2.2400e-004	
tblVehicleEF	UBUS	0.21	0.04	
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003	
tblVehicleEF	UBUS	0.04	2.0670e-003	
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004	
			I	

tblVehicleEF tblVehicleEF tblVehicleEF	UBUS UBUS	0.02	4.9810e-003	
	UBUS	0 13		
tblVehicleEF		0.13	0.02	
-	UBUS	9.0520e-003	2.2660e-003	
tblVehicleEF	UBUS	0.43	0.05	
tblVehicleEF	UBUS	0.02	0.07	
tblVehicleEF	UBUS	0.99	0.09	
tblVehicleEF	UBUS	9.5110e-003	6.3200e-003	
tblVehicleEF	UBUS	1.7480e-003	2.2300e-004	
tblVehicleEF	UBUS	0.02	4.9810e-003	
tblVehicleEF	UBUS	0.13	0.02	
tblVehicleEF	UBUS	9.0520e-003	2.2660e-003	
tblVehicleEF	UBUS	1.83	3.11	
tblVehicleEF	UBUS	0.02	0.07	
tblVehicleEF	UBUS	1.09	0.09	
tblVehicleEF	UBUS	1.36	3.04	
tblVehicleEF	UBUS	0.08	0.02	
tblVehicleEF	UBUS	7.51	23.60	
tblVehicleEF	UBUS	14.02	1.85	
tblVehicleEF	UBUS	1,788.21	1,635.62	
tblVehicleEF	UBUS	153.17	22.93	
tblVehicleEF	UBUS	3.75	0.30	
tblVehicleEF	UBUS	12.25	0.22	
tblVehicleEF	UBUS	0.49	0.09	
tblVehicleEF	UBUS	0.01	0.02	
tblVehicleEF	UBUS	0.04	2.1820e-003	
tblVehicleEF	UBUS	1.4880e-003	2.2400e-004	
tblVehicleEF	UBUS	0.21	0.04	

· · · · · · · · · · · · · · · · · · ·	-	-	-	
tblVehicleEF	UBUS	3.0000e-003	5.0570e-003	
tblVehicleEF	UBUS	0.04	2.0670e-003	
tblVehicleEF	UBUS	1.3680e-003	2.0600e-004	
tblVehicleEF	UBUS	8.1990e-003	2.8430e-003	
tblVehicleEF	UBUS	0.12	0.02	
tblVehicleEF	UBUS	4.1400e-003	1.2010e-003	
tblVehicleEF	UBUS	0.42	0.05	
tblVehicleEF	UBUS	0.03	0.09	
tblVehicleEF	UBUS	1.10	0.09	
tblVehicleEF	UBUS	9.5090e-003	6.3200e-003	
tblVehicleEF	UBUS	1.7850e-003	2.2700e-004	
tblVehicleEF	UBUS	2.8430e-003		
tblVehicleEF	UBUS	0.12	0.02	
tblVehicleEF	UBUS	4.1400e-003	1.2010e-003	
tblVehicleEF	UBUS	1.82	3.11	
tblVehicleEF	UBUS	0.03	0.09	
tblVehicleEF	UBUS	1.20	0.10	
tblVehicleTrips	ST_TR	2.20	3.36	
tblVehicleTrips	ST_TR	2.03	3.23	
tblVehicleTrips	SU_TR	2.44	3.61	
tblVehicleTrips	SU_TR	1.95	3.14	
tblVehicleTrips	WD_TR	2.74	2.99	
tblVehicleTrips	/ehicleTrips WD_TR		3.71	
tblWoodstoves	NumberCatalytic	7.20	0.00	
tblWoodstoves	NumberCatalytic	3.80	0.00	
tblWoodstoves	NumberNoncatalytic	7.20	0.00	
tblWoodstoves	NumberNoncatalytic	3.80	0.00	
15111000310705	NamberNonoatalytic	0.00		

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2.0 Emissions Summary

	ROG	NOx	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
Ouerter		art Data	-	Dete	NA 1 1					1 1 1						

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					ton	s/yr							МТ	/yr		
Area	1.0366	0.0718	2.2928	4.1000e- 004		0.0163	0.0163		0.0163	0.0163	0.0000	56.5441	56.5441	4.6000e- 003	9.7000e- 004	56.9477
Energy	0.0138	0.1175	0.0500	7.5000e- 004		9.5000e- 003	9.5000e- 003		9.5000e- 003	9.5000e- 003	0.0000	432.4411	432.4411	0.0148	5.0300e- 003	434.3102
Mobile	0.2750	0.8710	2.7610	0.0102	0.9393	9.8500e- 003	0.9491	0.2514	9.2900e- 003	0.2607	0.0000	959.1806	959.1806	0.0362	0.0000	960.0860
Waste						0.0000	0.0000		0.0000	0.0000	33.7696	0.0000	33.7696	1.9957	0.0000	83.6627
Water			 			0.0000	0.0000		0.0000	0.0000	4.5475	91.4564	96.0039	0.4709	0.0118	111.2944
Total	1.3254	1.0603	5.1038	0.0113	0.9393	0.0356	0.9749	0.2514	0.0351	0.2865	38.3171	1,539.622 3	1,577.939 4	2.5222	0.0178	1,646.300 9

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	СО	SO			Exhaust PM10	PM10 Total	Fugiti PM2		aust 12.5	PM2.5 Total	Bio- CO2	NBio-	CO2	Total CO2	CH4	N2O	CO2e
Category						tons/y	۲r									MT	ſ/yr		
Area	1.0366	0.0718	2.292	8 4.100 00			0.0163	0.0163		0.0	163	0.0163	0.0000	56.5	441	56.5441	4.6000e- 003	9.7000e- 004	56.9477
Energy	0.0138	0.1175	0.050	0 7.500 00		9	9.5000e- 003	9.5000e- 003			00e- 03	9.5000e- 003	0.0000	373.1	786	373.1786	0.0124	4.5200e- 003	374.8356
Mobile	0.2750	0.8710	2.761	0.01	02 0.9	393 9	9.8500e- 003	0.9491	0.25		00e- 03	0.2607	0.0000	959.1	806	959.1806	0.0362	0.0000	960.0860
Waste	F) 91 91 91 91 91						0.0000	0.0000	 - - -	0.0	000	0.0000	33.7696	0.00	000	33.7696	1.9957	0.0000	83.6627
Water	F1						0.0000	0.0000		0.0	000	0.0000	4.5475	91.4	564	96.0039	0.4709	0.0118	111.2944
Total	1.3254	1.0603	5.103	8 0.01	13 0.9	393	0.0356	0.9749	0.25	14 0.0	351	0.2865	38.3171	1,480	.359	1,518.676 8	2.5198	0.0173	1,586.826 3
	ROG	1	NOx	со	SO2	Fugitiv PM10			110 otal	Fugitive PM2.5	Exha PM	aust PM2 I2.5 Tot		- CO2	NBio-C	CO2 Total	CO2 C	H4 N	20 CO26
Percent Reduction	0.00).00	0.00	0.00	0.00	0.	00 0	.00	0.00	0.	00 0.0	0 0	.00	3.85	5 3.7	76 O.	10 2	.86 3.61

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2023	12/30/2022	5	0	

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 4.46

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
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

Trips and VMT

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

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.2750	0.8710	2.7610	0.0102	0.9393	9.8500e- 003	0.9491	0.2514	9.2900e- 003	0.2607	0.0000	959.1806	959.1806	0.0362	0.0000	960.0860
Unmitigated	0.2750	0.8710	2.7610	0.0102	0.9393	9.8500e- 003	0.9491	0.2514	9.2900e- 003	0.2607	0.0000	959.1806	959.1806	0.0362	0.0000	960.0860

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	430.00	483.45	519.75	1,539,279	1,539,279
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Retirement Community	282.00	245.48	238.64	924,637	924,637
Total	712.00	728.93	758.39	2,463,916	2,463,916

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
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
Congregate Care (Assisted	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Other 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
Retirement Community	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Other Asphalt Surfaces	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Parking Lot	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898
Retirement Community	0.548600	0.036250	0.186898	0.112544	0.014284	0.004806	0.017604	0.070134	0.001409	0.001147	0.004508	0.000918	0.000898

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	7/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	237.0502	237.0502	9.7900e- 003	2.0200e- 003	237.8983
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	296.3128	296.3128	0.0122	2.5300e- 003	297.3728
NaturalGas Mitigated	0.0138	0.1175	0.0500	7.5000e- 004		9.5000e- 003	9.5000e- 003		9.5000e- 003	9.5000e- 003	0.0000	136.1284	136.1284	2.6100e- 003	2.5000e- 003	136.9373
NaturalGas Unmitigated	0.0138	0.1175	0.0500	7.5000e- 004		9.5000e- 003	9.5000e- 003		9.5000e- 003	9.5000e- 003	0.0000	136.1284	136.1284	2.6100e- 003	2.5000e- 003	136.9373

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	'/yr		
Congregate Care (Assisted Living)	1.75174e +006	9.4500e- 003	0.0807	0.0344	5.2000e- 004		6.5300e- 003	6.5300e- 003		6.5300e- 003	6.5300e- 003	0.0000	93.4795	93.4795	1.7900e- 003	1.7100e- 003	94.0350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Retirement Community	799210	4.3100e- 003	0.0368	0.0157	2.4000e- 004		2.9800e- 003	2.9800e- 003		2.9800e- 003	2.9800e- 003	0.0000	42.6489	42.6489	8.2000e- 004	7.8000e- 004	42.9023
Total		0.0138	0.1176	0.0500	7.6000e- 004		9.5100e- 003	9.5100e- 003		9.5100e- 003	9.5100e- 003	0.0000	136.1284	136.1284	2.6100e- 003	2.4900e- 003	136.9373

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							МТ	/yr		
Congregate Care (Assisted Living)	1.75174e +006	9.4500e- 003	0.0807	0.0344	5.2000e- 004		6.5300e- 003	6.5300e- 003		6.5300e- 003	6.5300e- 003	0.0000	93.4795	93.4795	1.7900e- 003	1.7100e- 003	94.0350
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Retirement Community	799210	4.3100e- 003	0.0368	0.0157	2.4000e- 004		2.9800e- 003	2.9800e- 003		2.9800e- 003	2.9800e- 003	0.0000	42.6489	42.6489	8.2000e- 004	7.8000e- 004	42.9023
Total		0.0138	0.1176	0.0500	7.6000e- 004		9.5100e- 003	9.5100e- 003		9.5100e- 003	9.5100e- 003	0.0000	136.1284	136.1284	2.6100e- 003	2.4900e- 003	136.9373

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5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		ΜT	7/yr	
Congregate Care (Assisted Living)	592363	188.7395	7.7900e- 003	1.6100e- 003	189.4147
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	29400	9.3675	3.9000e- 004	8.0000e- 005	9.4010
Retirement Community	308221	98.2058	4.0500e- 003	8.4000e- 004	98.5572
Total		296.3128	0.0122	2.5300e- 003	297.3728

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		ΜT	7/yr	
Congregate Care (Assisted Living)	473890	150.9916	6.2300e- 003	1.2900e- 003	151.5317
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	23520	7.4940	3.1000e- 004	6.0000e- 005	7.5208
Retirement Community	246577	78.5647	3.2400e- 003	6.7000e- 004	78.8457
Total		237.0502	9.7800e- 003	2.0200e- 003	237.8983

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	1.0366	0.0718	2.2928	4.1000e- 004		0.0163	0.0163		0.0163	0.0163	0.0000	56.5441	56.5441	4.6000e- 003	9.7000e- 004	56.9477
Unmitigated	1.0366	0.0718	2.2928	4.1000e- 004		0.0163	0.0163		0.0163	0.0163	0.0000	56.5441	56.5441	4.6000e- 003	9.7000e- 004	56.9477

6.2 Area by SubCategory

<u>Unmitigated</u>

	ROG	NOx	CO	SO2	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					ton	s/yr							МТ	/yr		
Architectural Coating	0.0782					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8843					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.3400e- 003	0.0456	0.0194	2.9000e- 004		3.6900e- 003	3.6900e- 003		3.6900e- 003	3.6900e- 003	0.0000	52.8302	52.8302	1.0100e- 003	9.7000e- 004	53.1441
Landscaping	0.0687	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036
Total	1.0366	0.0718	2.2928	4.1000e- 004		0.0163	0.0163		0.0163	0.0163	0.0000	56.5441	56.5441	4.5900e- 003	9.7000e- 004	56.9477

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	0.0782					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8843					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.3400e- 003	0.0456	0.0194	2.9000e- 004		3.6900e- 003	3.6900e- 003		3.6900e- 003	3.6900e- 003	0.0000	52.8302	52.8302	1.0100e- 003	9.7000e- 004	53.1441
Landscaping	0.0687	0.0262	2.2734	1.2000e- 004		0.0126	0.0126		0.0126	0.0126	0.0000	3.7140	3.7140	3.5800e- 003	0.0000	3.8036
Total	1.0366	0.0718	2.2928	4.1000e- 004		0.0163	0.0163		0.0163	0.0163	0.0000	56.5441	56.5441	4.5900e- 003	9.7000e- 004	56.9477

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category		MT	ī/yr	
initigated	96.0039	0.4709	0.0118	111.2944
erininguted	96.0039	0.4709	0.0118	111.2944

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		MT	ī/yr	
Congregate Care (Assisted Living)		62.8389	0.3082	7.7300e- 003	72.8472
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Retirement Community	4.95171 / 3.12173	33.1650	0.1627	4.0800e- 003	38.4471
Total		96.0039	0.4709	0.0118	111.2944

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	ī/yr	
Congregate Care (Assisted Living)		62.8389	0.3082	7.7300e- 003	72.8472
Other Asphalt Surfaces	0/0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0/0	0.0000	0.0000	0.0000	0.0000
Retirement Community	4.95171 / 3.12173	33.1650	0.1627	4.0800e- 003	38.4471
Total		96.0039	0.4709	0.0118	111.2944

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
		МТ	7/yr	
Innigatou	33.7696	1.9957	0.0000	83.6627
Grinnigatou	33.7696	1.9957	0.0000	83.6627

8.2 Waste by Land Use

<u>Unmitigated</u>

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	ī/yr	
Congregate Care (Assisted Living)	131.4	26.6730	1.5763	0.0000	66.0813
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	34.96	7.0966	0.4194	0.0000	17.5814
Total		33.7696	1.9957	0.0000	83.6627

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	7/yr	
Congregate Care (Assisted Living)	131.4	26.6730	1.5763	0.0000	66.0813
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Retirement Community	34.96	7.0966	0.4194	0.0000	17.5814
Total		33.7696	1.9957	0.0000	83.6627

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

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Equipment Type Number

11.0 Vegetation

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APPENDIX 3.3:

EMFAC2017 OUTPUTS



EMFAC2017 Derived CalEEMod Annual Emission Rates: Year 2023^{1,2}

Season Annual	Pollutant CH4_IDLEX	LDA 0	LDT1 0	LDT2 0	MDV	LHDT1 0.0045407	LHDT2 0.00276992	MHDT 0.002755155	HHDT 0.022399945	OBUS 0.008522	UBUS	MCY 0	SBUS 0.0872051	<u>мн</u> 0
Annual	CH4_IDLEX CH4_RUNEX	0.0018869	0.0057489	0.0031844	0.0041642	0.0045407	0.00276992	0.002755155	0.0223999945	0.008522	3.0424882	0.3131324	0.0066033	0.0032743
Annual	CH4_KONEX CH4_STREX	0.0018809	0.0733726	0.0629169	0.0041042	0.0044198	0.003203923	0.007030234	2.14182E-07	0.0240057	0.0246221	0.2420258	0.008099	0.0032743
Annual	CO_IDLEX	0.0448032	0.0733720	0.0029109	0.0781102	0.1678772	0.126758625	0.328949805	6.433638207	0.4864641	0.0240221	0.2420258	3.4287623	0
Annual	CO RUNEX	-	1.2218976	0.7892313	0.9170107	0.5983104	0.443005373	0.121131478	0.238528941		23.596827	18.854788		0.3331045
Annual	CO_STREX	2.0291591	2.2798463	2.5854594	2.9900286	0.8884942	0.47818962	0.809250221	0.004385463	2.6752142		8.642447	1.078573	0
Annual	CO2_NBIO_IDLEX	0	0	0	0	9.3581592	14.92008755	67.2854915	1065.923835	64.367009	0	0	369.73833	0
Annual	CO2_NBIO_RUNEX	251.70403	298.86564	314.21685	396.16171	619.96277	614.9225059	911.0199741	1272.829483	1335.493	1635.6231	207.59836	1096.5469	929.32761
Annual	CO2_NBIO_STREX	52.262945	63.705824	67.25728	84.063345	9.9909554	6.424441145	7.214801684	0.03594404	21.276475	22.961833	60.360049	6.9242759	0
Annual	NOX_IDLEX	0	0	0	0	0.0826802	0.121917702	0.397207898	5.312422425	0.2257829	0	0	3.3195995	0
Annual	NOX_RUNEX	0.0309022	0.1047964	0.0645781	0.0871858	1.3894798	1.517354389	0.908191511	1.955483692	0.905988	0.3035805	1.125469	4.420865	4.2679083
Annual	NOX_STREX ³	0.1657278	0.2618108	0.2551235	0.3291257	0.2837258	0.159545375	1.799471753	2.495253007	0.6856266	0.2242227	0.2630249	0.7800028	0
Annual	PM10 IDLEX	0	0	0	0	0.0010129	0.001512805	0.000433919	0.002365147	7.511E-05	0	0	0.0033043	0
Annual	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.060417566	0.13034	0.0918981	0.01176	0.7448002	0.13034
Annual	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100668	0.010946027	0.012000003	0.035225137	0.012	0.0202294	0.004	0.0105986	0.016
Annual	PM10_RUNEX	0.0013047	0.0018934	0.0013477	0.0014102	0.0102968	0.013566467	0.009466862	0.024179126	0.0084683	0.0021823	0.0017969	0.0257095	0.1361859
Annual	PM10_STREX	0.0017588	0.0025559	0.0017952	0.0018512	0.0002106	9.84354E-05	8.28075E-05	4.71852E-07	0.0002181	0.0002239	0.0027747	4.794E-05	0
Annual	PM25_IDLEX	0	0	0	0	0.0009691	0.001447362	0.000415148	0.002262832	7.186E-05	0	0	0.0031614	0
Annual	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.025893242	0.05586	0.0393849	0.00504	0.3192001	0.05586
Annual	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025167	0.002736507	0.003000001	0.008806284	0.003	0.0050573	0.001	0.0026497	0.004
Annual	PM25_RUNEX	0.0012018	0.0017423	0.0012406	0.0013009	0.0098328	0.012970752	0.009054989	0.023133139	0.0080878	0.0020674	0.0016796	0.0245874	0.1302946
Annual	PM25_STREX	0.0016172	0.0023502	0.0016506	0.0017022	0.0001937	9.05077E-05	7.61385E-05	4.33851E-07	0.0002005	0.0002059	0.0026088	4.408E-05	0
Annual	ROG_DIURN	0.0499353	0.1617031	0.0834193	0.1040066	0.0023924	0.001119316	0.00041816	2.61104E-06	0.0026672	0.0028048	1.4319645	0.0015764	0
Annual	ROG_HTSK	0.0863623	0.224901	0.1201124	0.1521245	0.0693882	0.033771174	0.014777615	9.67852E-05	0.0265187	0.0159707	0.7872755	0.0114418	0
Annual	ROG_IDLEX	0	0	0	0	0.0196433	0.014878453	0.015150214	0.435555976	0.0456612	0	0	0.4072026	0
Annual	ROG_RESTL	0.0401253	0.1141391	0.0708635	0.09308	0.0012616	0.000613159	0.000227643	1.60287E-06	0.0011772		0.7584722	0.0007923	0
Annual	ROG_RUNEX	0.0069514	0.0249376	0.0126	0.0170823	0.0538669	0.055274928	0.009544935	0.018413033	0.0303843	0.0485813	2.1137636	0.0924064	0.070494
Annual	ROG_RUNLS	0.1934756	0.7345866	0.3938448 0.2841172	0.4562317	0.4372965	0.194951955	0.073961783	0.000443814	0.2925608	0.0762512	1.766858 1.8332332	0.0695237	0
Annual Annual	ROG_STREX	0.1913074 0	0.3650898 0	0.2841172	0.3772633 0	0.0668598 9.037E-05	0.035024058 0.000142292	0.037511191 0.00063797	1.09632E-06 0.010008431	0.1278709	0.0951018	1.8332332	0.0473665	0
Annual	SO2_IDLEX	0.0024592	0.0029207	0.0030702	0.0038688	0.0060263	0.000142292	0.00865572	0.010008431		0.0063195	0.0020544	0.0104989	0.0087855
Annual	SO2_RUNEX SO2_STREX	0.0005107	0.0006226	0.0006573	0.0008215	9.887E-05	6.35751E-05	7.13963E-05	3.55695E-07	0.0002105	0.0002272	0.0005973	6.852E-05	0.0087855
Annual	TOG_DIURN	0.0499652	0.1618001	0.0834693	0.104069	0.0023924	0.001119316	0.00041816	2.61104E-06	0.002103		1.4319645	0.0015764	0
Annual	TOG_HTSK	0.086414	0.225036	0.1201844	0.1522157	0.0693882	0.033771174	0.014777615	9.67852E-05	0.0265187	0.0159707	0.7872755	0.0114418	0
Annual	TOG_IDLEX	0.000414	0.225050	0.1201044	0.1522157	0.0273519	0.019755884	0.020335748	0.498029629	0.0615992	0.01357.07	0.7072755	0.5877605	0
Annual	TOG_RESTL	0.0401494	0.1142076	0.070906	0.0931359	0.0012616	0.000613159	0.000227643	1.60287E-06	0.0011772	-	0.7584722	0.0007923	0
Annual	TOG_RUNEX	0.0101114	0.0363937	0.0183641	0.0248389	0.0650001	0.064111366	0.011716585	0.048106314		3.1108101	2.6116906		0.0802528
Annual	TOG_RUNLS	0.1935917	0.7350273	0.3940811	0.4565054	0.4372965	0.194951955	0.073961783	0.000443814		0.0762512	1.766858	0.0695237	0
Annual	TOG_STREX	0.2096036	0.4000067	0.31129	0.4133425	0.0732031	0.038346935	0.041070033	1.20033E-06	0.1400025		1.995157	0.0518603	0
Summer	CH4_IDLEX	0	0	0	0	0.0045537	0.002777346	0.002627006	0.023685478	0.0085919	0	0	0.087323	0
Summer	CH4_RUNEX	0.0021288	0.0064142	0.0035754	0.00468	0.0044899	0.003286251	0.00088813	0.027816513	0.0055394	3.0425325	0.3087008	0.0066875	0.0032743
Summer	CH4_STREX	0.0389698	0.0632511	0.0545439	0.0676753	0.0129677	0.00690337	0.006757077	2.04342E-07	0.0229107	0.0223864	0.2137359	0.0067519	0
Summer	CO_IDLEX	0	0	0	0	0.1678772	0.126758625	0.286623132	6.346404591	0.4831512	0	0	3.3921972	0
Summer	CO_RUNEX	0.6718832	1.444288	0.9408609	1.0908713	0.6064749	0.44537467	0.122787353	0.238667787	0.7182675	23.599015	18.832855	0.5628972	0.3331045
Summer	CO_STREX	1.7035307	1.9077361	2.1628263	2.4949482	0.8424303	0.453635343	0.76370611	0.004138722	2.4874475	1.5837573	7.9028329	0.7742141	0
Summer	CO2_NBIO_IDLEX	0	0	0	0	9.3581592	14.92008755	67.23807783	1052.827751	63.701705	0	0	378.97922	0
Summer	CO2_NBIO_RUNEX	272.11086	320.05904	334.37657	417.65631	619.97723	614.9266661	911.022875	1272.829712		1635.6271	207.41131	1096.5634	929.32761
Summer	CO2_NBIO_STREX	51.649898	62.92991	66.443304	83.08804	9.9086217	6.380643186	7.137174571	0.035552778	20.958077	22.490884	58.436811	6.4152164	0
Summer	NOX_IDLEX	0	0	0	0	0.0826802	0.121917702	0.389589606	5.06332578	0.2145979	0	0	3.3986484	0
Summer	NOX_RUNEX	0.0280097	0.0940928	0.0582614	0.0787008	1.3091179	1.433264131	0.855681654	1.848376656	0.8404265	0.2953035	0.9735285	4.1579413	4.0281165
Summer	NOX_STREX ³	0.1544099	0.2438047	0.2376668	0.3065529	0.2725695	0.153283811	1.796581904	2.495247894	0.67484	0.2132216	0.2477416	0.7742504	0
Summer	PM10_IDLEX	0	0	0	0	0.0010129	0.001512805	0.000368743	0.002078293	6.674E-05	0	0	0.0027928	0
Summer	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.060417566		0.0918981	0.01176	0.7448002	0.13034
Summer	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100668	0.010946027	0.012000003	0.035225137		0.0202294	0.004	0.0105986	0.016
Summer	PM10_RUNEX	0.0013047	0.0018934	0.0013477	0.0014102	0.0102968	0.013566467	0.009466862	0.024179126	0.0084683	0.0021823	0.0017969	0.0257095	0.1361859
Summer	PM10_STREX	0.0017588	0.0025559	0.0017952	0.0018512	0.0002106	9.84354E-05	8.28075E-05	4.71852E-07		0.0002239	0.0027747	4.794E-05	0
Summer	PM25_IDLEX	0	0	0	0	0.0009691	0.001447362	0.000352791	0.001988387	6.385E-05	0	0	0.0026719	0
Summer	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011		0.025893242		0.0393849	0.00504	0.3192001	0.05586
Summer	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025167	0.002736507	0.003000001	0.008806284		0.0050573	0.001	0.0026497	0.004
Summer	PM25_RUNEX		0.0017423		0.0013009	0.0098328	0.012970752	0.009054989	0.023133139		0.0020674	0.0016796	0.0245874	0.1302946
Summer	PM25_STREX	0.0016172	0.0023502	0.0016506	0.0017022	0.0001937	9.05077E-05	7.61385E-05	4.33851E-07		0.0002059	0.0026088	4.408E-05	0
Summer	ROG_DIURN	0.092411 0.0964851	0.3004602	0.1538291	0.1910835	0.0042442	0.001991577	0.000750934 0.016691363	4.90319E-06	0.0046974	0.0049809	2.749938	0.0027601	0
Summer	ROG_HTSK		0.2626975	0.1350376	0.1681545 0	0.0783689	0.038223824		0.000106277	0.02873		1.093855	0.0118519	0
Summer	ROG_IDLEX ROG_RESTL	0 0.074744	0 2152647	0		0.0196433	0.014878453	0.014777375	0.461157561	0.046602	0 0022658	0	0.4069309	0
Summer	-	0.074744	0.2153647		0.1692383	0.0024046 0.0542184	0.001167999	0.000445854 0.009608999	3.30486E-06		0.0022658	1.7203704 2.0708739	0.0014667	0 0.070494
Summer	ROG_RUNEX	0.19018	0.027671 0.7222288	0.0140193 0.3867896	0.0190131 0.4487595	0.0542184	0.055368784 0.195546185	0.009608999	0.018415253 0.000449203	0.0310306	0.0487059	1.737429	0.0928205 0.0635263	0.070494
Summer	ROG_RUNLS ROG_STREX	0.19018	0.3120517	0.3867896	0.3234745	0.4382743	0.033570914	0.074182136	1.04898E-06		0.0739941	1.6073261	0.0635263	0
Summer Summer	SO2_IDLEX	0.1642963	0.3120517	0.243675	0.3234745	9.037E-05	0.000142292	0.035891613	0.009885111	0.121682	0.0863448	1.6073261	0.00394336	0
Summer	SO2_IDLEX	0.0026586	0.0031278	0.0032672	0.0040789	0.0060265	0.000142292	0.008655749	0.003883111		0.0063196	0.0020525	0.0104991	0.0087855
Summer	SO2_STREX	0.0020388	0.000615	0.00052072	0.00040785	9.805E-05	6.31416E-05	7.06281E-05	3.51824E-07		0.0003190	0.0020323	6.348E-05	0.0087855
Summer	TOG_DIURN	0.0924663	0.3006404	0.1539213	0.1911981	0.0042442	0.001991577	0.000750934	4.90319E-06	0.0002074		2.749938	0.0027601	0
Summer	TOG_HTSK	0.0965429	0.2628551	0.1353213	0.1682553	0.0783689	0.038223824	0.016691363	0.000106277		0.0185244	1.093855	0.0118519	0
Summer	TOG_IDLEX	0.0303423	0.20285551	0.1351180	0.1082555	0.0273519	0.019755884	0.010031303	0.527271847	0.0626703	0.0185244	1.055855	0.5874511	0
Summer	TOG_IDLEX	0.0747888	0.2154939	0.1302326	0.1693398	0.0273519	0.019755884	0.019726007	3.30486E-06		0.0022658	1.7203704	0.0014667	0
Summer	TOG_RUNEX	0.0747888	0.2154939	0.1302326	0.1693398	0.065513	0.064248322	0.000445854	0.048109554		3.1109919	2.5604951	0.1105783	0.0802528
Summer	TOG_RUNLS		0.0403843	0.3870217	0.4490288	0.4382743	0.195546185	0.011810086	0.000449203		0.0739941	1.737429	0.0635263	0.0802328
Summer	TOG_STREX		0.3418961	0.26698	0.3544098	0.0701634	0.036755925		1.14851E-06		0.0945367		0.0431748	0
														0

Winter	CH4_IDLEX	0	0	0	0	0.004543	0.002771192	0.002945617	0.018584837	0.0084633	0	0	0.0872067	0
Winter	CH4_RUNEX	0.0018546	0.0056563	0.0031317	0.0040923	0.0044277	0.003266732	0.000874173	0.000819608	0.0054162	3.0424922	0.3105787	0.006602	0.0032743
Winter	CH4_STREX	0.0448619	0.0733484	0.06291	0.0781049	0.0133912	0.007129132	0.006964358	2.12516E-07	0.0239298	0.0244988	0.2370663	0.0082436	0
Winter	CO_IDLEX	0	0	0	0	0.1678772	0.126758625	0.388116692	6.514513971	0.4910392	0	0	3.4792571	0
Winter	CO_RUNEX	0.539678	1.180697	0.7614855	0.884759	0.5991695	0.443274557	0.121271705	0.153089453	0.703653	23.59702	18.300696	0.5534118	0.3331045
Winter	CO_STREX	2.0132412	2.2625156	2.5675453	2.9698032	0.8802741	0.47392663	0.800617995	0.004338734	2.6656906	1.8457548	8.4278924	1.1017425	0
Winter	CO2_NBIO_IDLEX	0	0	0	0	9.3581592	14.92008755	67.34688641	1077.398907	65.285763	0	0	356.97711	0
Winter	CO2_NBIO_RUNEX	248.26101	295.28652	310.81441	392.53295	619.96429	614.9229798	911.0202216	1253.680895	1335.4953	1635.6235	206.64372	1096.5466	929.32761
Winter	CO2_NBIO_STREX	52.236878	63.676368	67.227734	84.02981	9.9762095	6.416799952	7.200173203	0.035869944	21.259945	22.933868	59.88215	6.9638689	0
Winter	NOX_IDLEX	0	0	0	0	0.0826802	0.121917702	0.40772782	5.618352499	0.2412289	0	0	3.2104368	0
Winter	NOX_RUNEX	0.029509	0.100183	0.0616871	0.0832989	1.3670637	1.49381553	0.892924017	1.918074232	0.8881268	0.3014555	1.0889414	4.3545929	4.1977547
Winter	NOX_STREX ³	0.164118	0.2593714	0.2526727	0.3259915	0.2794792	0.157150746	1.798611157	2.495251484	0.6823205	0.2222737	0.2604454	0.7802853	0
Winter	PM10_IDLEX	0	0	0	0	0.0010129	0.001512805	0.000523924	0.002699758	8.667E-05	0	0	0.0040108	0
Winter	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.089180026	0.130340037	0.060043994	0.13034	0.0918981	0.01176	0.7448002	0.13034
Winter	PM10_PMTW	0.008	0.008	0.008	0.008	0.0100668	0.010946027	0.012000003	0.035007311	0.012	0.0202294	0.004	0.0105986	0.016
Winter	PM10_RUNEX	0.0013047	0.0018934	0.0013477	0.0014102	0.0102968	0.013566467	0.009466862	0.024151342	0.0084683	0.0021823	0.0017969	0.0257095	0.1361859
Winter	PM10_STREX	0.0017588	0.0025559	0.0017952	0.0018512	0.0002106	9.84354E-05	8.28075E-05	4.71852E-07	0.0002181	0.0002239	0.0027747	4.794E-05	0
Winter	PM25_IDLEX	0	0	0	0	0.0009691	0.001447362	0.000501259	0.002582967	8.292E-05	0	0	0.0038373	0
Winter	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.038220011	0.055860016	0.02573314	0.05586	0.0393849	0.00504	0.3192001	0.05586
Winter	PM25_PMTW	0.002	0.002	0.002	0.002	0.0025167	0.002736507	0.003000001	0.008751828	0.003	0.0050573	0.001	0.0026497	0.004
Winter	PM25_RUNEX	0.0012018	0.0017423	0.0012406	0.0013009	0.0098328	0.012970752	0.009054989	0.023106557	0.0080878	0.0020674	0.0016796	0.0245874	0.1302946
Winter	PM25_STREX	0.0016172	0.0023502	0.0016506	0.0017022	0.0001937	9.05077E-05	7.61385E-05	4.33851E-07	0.0002005	0.0002059	0.0026088	4.408E-05	0
Winter	ROG_DIURN	0.0488148	0.1633364	0.0798345	0.0974958	0.0024967	0.001135244	0.000435792	2.68249E-06	0.0027829	0.0028434	1.6393559	0.0014837	0
Winter	ROG_HTSK	0.0944738	0.2576047	0.1320133	0.1644796	0.0804822	0.03841713	0.016334791	0.000107927	0.028432	0.0178481	1.0540129	0.0117059	0
Winter	ROG_IDLEX	0	0	0	0	0.0196433	0.014878453	0.015676089	0.400126443	0.0443619	0	0	0.4075779	0
Winter	ROG_RESTL	0.0401785	0.1138154	0.071025	0.0934274	0.0013209	0.000634648	0.000238868	1.72859E-06	0.0012515	0.0012014	0.7628485	0.0008183	0
Winter	ROG_RUNEX	0.0068278	0.0245071	0.0123808	0.0167676	0.0539028	0.055285876	0.009550806	0.017311118	0.0304402	0.0485932	2.0925849	0.0924026	0.070494
Winter	ROG_RUNLS	0.2190298	0.8575349	0.4555568	0.5238872	0.4706234	0.210639325	0.08059738	0.000472322	0.3114386	0.0890146	2.0230662	0.0843655	0
Winter	ROG_STREX	0.1911347	0.3645853	0.2838611	0.376922	0.0663485	0.034760684	0.037229432	1.08808E-06	0.1274435	0.0945968	1.7917479	0.0482208	0
Winter	SO2_IDLEX	0	0	0	0	9.037E-05	0.000142292	0.000638416	0.010178731	0.0006236	0	0	0.0034157	0
Winter	SO2_RUNEX	0.0024256	0.0028857	0.0030369	0.0038333	0.0060263	0.005916352	0.008655723	0.011844363	0.0129659	0.0063195	0.0020449	0.0104989	0.0087855
Winter	SO2_STREX	0.0005105	0.0006223	0.000657	0.0008212	9.872E-05	6.34994E-05	7.12516E-05	3.54962E-07	0.0002104	0.0002269	0.0005926	6.891E-05	0
Winter	TOG_DIURN	0.0488441	0.1634344	0.0798823	0.0975543	0.0024967	0.001135244	0.000435792	2.68249E-06	0.0027829	0.0028434	1.6393559	0.0014837	0
Winter	TOG_HTSK	0.0945304	0.2577593	0.1320924	0.1645782	0.0804822	0.03841713	0.016334791	0.000107927	0.028432	0.0178481	1.0540129	0.0117059	0
Winter	TOG_IDLEX	0	0	0	0	0.0273519	0.019755884	0.021193826	0.455513497	0.0601201	0	0	0.5881877	0
Winter	TOG_RESTL	0.0402026	0.1138837	0.0710676	0.0934835	0.0013209	0.000634648	0.000238868	1.72859E-06	0.0012515	0.0012014	0.7628485	0.0008183	0
Winter	TOG_RUNEX	0.0099311	0.0357655	0.0180442	0.0243809	0.0650526	0.064127342	0.011725152	0.019738418	0.0426976	3.1108276	2.5860036	0.1099684	0.0802528
Winter	TOG_RUNLS	0.2191612	0.8580494	0.4558302	0.5242015	0.4706234	0.210639325	0.08059738	0.000472322	0.3114386	0.0890146	2.0230662	0.0843655	0
Winter	TOG_STREX	0.2094144	0.3994539	0.3110094	0.4129687	0.0726433	0.038058574	0.040761542	1.19131E-06	0.1395346	0.1035715	1.9500346	0.0527957	0

1 Source: California Air Resources Board. EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/; California Air Pollution Control Officers Association (CAPCOA). 2017, November. California Emissions Estimator Model User's Guide, Version 2016.3.2, Appendix A.

2 Unless otherwise noted, per CalEEMod methodology, the calculated CalEEMod emission rates are derived from the emission rates obtained using the EMFAC2017 Web Database for the

Riverside (SC) region. 3 Because EMFAC2017 provides vehicle trips data for MHDT and HHDT diesel trucks, the formula provided in Appendix A of the CalEEMod User's Guide in calculating the NO_X STREX emission rates are utilized.

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