Appendix IS-2

GHG and Energy Memorandum

Prepared for
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ENTRADA SOUTH AND VALENCIA COMMERCE CENTER PROJECT GREENHOUSE GAS AND ENERGY IMPACTS

NEWHALL RANCH

LOS ANGELES COUNTY, CALIFORNIA

RAMBOLL

CONTENTS

TABLES

APPENDICES

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AB	Assembly Bill
AEA	Additional Environmental Analysis
BTU	British thermal unit
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CO2e	carbon dioxide equivalents
CO2e/DU	carbon dioxide equivalents/dwelling unit
CO2e/yr	carbon dioxide equivalents/year
DU	dwelling unit
EIR	Environmental Impact Report
ES	Entrada South
EPA	Environmental Protection Agency
EV	Electric vehicle
FAR	floor area ratio
GHG	greenhouse gas
MM	mitigation measures
MMBTU	Million British thermal unit
MMRP	Mitigation Monitoring and Reporting Program
MT	metric tonne
MT/yr	metric tonne/year
MWh	megawatt-hour
N/A	Not applicable
OVOV	One Valley One Vision
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SF	square foot
STU	students
TDM	Transportation Demand Management
TGAL	thousand gallons
TMO	Transportation Management Organization
TSF	thousand square feet
USEPA	United States Environmental Protection Agency
VCC	Valencia Commerce Center
VMT	vehicle miles traveled
ZEVs	zero emission vehicles
ZNE	Zero Net Energy

1. INTRODUCTION

This analysis has been prepared to evaluate any potentially significant greenhouse gas (GHG) and energy impacts due to modifications of the above-referenced Project (hereinafter referred to as the Modified Project). For reference, this analysis refers to the approved Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP; hereinafter referred to as the 2017 Approved Project) studied in the State-certified Environmental Impact Report (EIR; State Clearinghouse [SCH] No. 2000011025). As described below, the Modified Project will not result in new significant impacts after mitigation.

2. BACKGROUND

Section 2, Global Climate Change/Greenhouse Gas Emissions, of the State-certified EIR's Additional Environmental Analysis provided a comprehensive analysis of the 2017 Approved Project's GHG emissions. The State-certified EIR process culminated with the California Department of Fish and Wildlife's (CDFW) adoption of a comprehensive mitigation framework for the attainment of net zero GHG emissions. The mitigation framework includes Mitigation Measures 2-1 through 2-13, as well as a Project Applicant-Proposed Supplemental Commitment that was incorporated into the adopted Mitigation Monitoring and Reporting Program (MMRP). Mitigation Measures 2-1 through 2-13 require the following overall GHG reduction strategies: zero net energy development; zero emission transportation; transportation demand management; reduction of construction and vegetation change emissions; and operational carbon neutrality.

In CDFW's findings for the State-certified EIR, CDFW concluded that, based on the State-certified EIR's GHG analysis and all supporting documentation, including estimates of emissions, the 2017 Approved Project would feasibly and reliably achieve net zero GHG emissions with the implementation of the 13 mitigation measures (2017 Final Additional Environmental Analysis [AEA], Tables 2.3-4 and 2.3-5). Accordingly, CDFW found that the 2017 Approved Project, with mitigation, will not create any net GHG emissions and, in all events, would not create cumulatively considerable GHG emissions. With the applicant's commitment to the detailed GHG reduction measures and its commitment to net zero emissions, and with technical and other support from the California Air Resources Board (CARB), CDFW found – in its independent lead agency judgment – that the 2017 Approved Project's GHG impacts would be less than significant with mitigation.

In addition, because the 2017 Approved Project would result in no net increase of GHG emissions, it would not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The State, and by extension regional and local climate policy, is rooted in achieving an emissions level below the reference year of 1990 and is based on levels established by scientific evidence to avoid adverse impacts of climate change. Therefore, relevant plans, such as CARB's Scoping Plan, the Southern California Association of Government's Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), and Los Angeles County's Community Climate Action Plan, all establish non-zero targets (i.e., some level of positive net emissions above existing conditions for land developments to accommodate planned growth) to achieve future GHG emissions targets. By achieving net zero GHG emissions, the feasibility and reliability of which has been demonstrated in the State-certified EIR, the 2017 Approved Project would not conflict with any relevant plan, policy, or regulation adopted for the purpose of reducing GHG emissions. CDFW determined that impacts related to conflicts with relevant plans, policies or regulations would be less than significant.

Further, CDFW determined that a 30-year project life is the appropriate period to use to evaluate the 2017 Approved Project's GHG emissions inventory and the applicant's commitment to net zero emissions. The 30-year project life represents the current reasonable limit of scientific and evidentiary data for the 2017 Approved Project, given current modeling tools, the changing regulatory structure, the level of uncertainty

beyond 2050 with respect to regulatory programs mandating further reductions in GHG emissions, and other available information.

In preparing the State-certified EIR's GHG analysis, CDFW had ongoing discussions and consultation with its consultant and technical staff at CARB concerning the adequacy and completeness of the technical GHG analysis and mitigation provided in both the Draft AEA and Final AEA, technical appendices and responses to comments. CARB is the expert State agency charged with implementing the State's climate policies. As memorialized in a letter from the CARB to CDFW, dated November 3, 2016, CARB concluded that the Draft AEA "provides an adequate technical basis to determine that the project would not result in any net additional GHG emissions after the mitigation measures are fully implemented." CARB reiterated the same view in a letter to CDFW dated June 7, 2017, concluding that the State-certified EIR's GHG analyses provide an adequate "technical basis for CDFW to find, in its lead agency discretion ... , that the project as currently proposed will not result in any net additional greenhouse gas emissions after identified mitigation measures are fully implemented."

CDFW identified a number of GHG benefits (with corresponding energy co-benefits) associated with the 2017 Approved Project when certifying the State-certified EIR:

- The 2017 Approved Project represents an innovative demonstration of a mixed-use development project providing needed housing and commercial development in a manner consistent with California's GHG reduction goals. Once developed, the 2017 Approved Project will be one of the largest, if not the largest, developments ever in California to achieve net zero GHG emissions. Benefits achieved from the 2017 Approved Project are exemplified by, but are not necessarily limited to, the following:
    - With implementation of Mitigation Measures 2-1 through 2-13, the 2017 Approved Project will reduce all project-related construction and operational GHG emissions to net zero over the 30-year project life.
    - As highlighted in CARB's 2017 Climate Change Scoping Plan, the 2017 Approved Project serves as one of "[s]everal recent examples of sustainable land use development projects in California [that] have demonstrated that it is feasible to design projects that achieve zero net additional GHG emissions."
    - The 2017 Approved Project will design and construct residential development, commercial development, private recreation centers, and public facilities to achieve Zero Net Energy standards, as defined by the California Energy Commission, which advances California policy goals of increasing the energy efficiency of homes and commercial buildings.
    - The 2017 Approved Project will install an electric vehicle charging station at every residence, as well as thousands more electric vehicle charging stations in commercial areas within the project site and off-site throughout Los Angeles County. The 2017 Approved Project will also provide subsidies for the purchase of zero emission vehicles to Project residents. This suite of mitigation commitments is expected to make the 2017 Approved Project a model community for electric vehicle ownership and increase the electric vehicle adoption rate within the Santa Clarita area and Los Angeles County, advancing

State, regional and local goals to reduce emissions through an increased use of electric vehicles.

- The 2017 Approved Project will implement a comprehensive Transportation Demand Management Plan to reduce vehicle miles travelled and enhance the use of alternative transportation modes both on and off the 2017 Approved Project site, advancing State, regional and local policy goals.
- The 2017 Approved Project will offer subsidies to transit providers for the replacement of up to 10 diesel or compressed natural gas transit buses with zero emission buses.
- The 2017 Approved Project will undertake or fund a building retrofit program to improve the energy efficiency of homes and other buildings within disadvantaged communities in Los Angeles County.
- The 2017 Approved Project will achieve GHG reductions by implementing direct reduction activities in accordance with the project's GHG Reduction Plan.

2.1 GHG Mitigation Measures from the State-Certified EIR

The 13 mitigation measures set forth below are identical to those imposed on the 2017 Approved Project in accordance with the State-certified EIR.[1] Parentheticals provide village-specific implementation details for Entrada South and Valencia Commerce Center.

Building Energy Efficiency

- **2-1.** Prior to the issuance of residential building permits for the project or a portion of the project, the project applicant or its designee shall submit one or more Zero Net Energy Confirmation (ZNE) Reports (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and confirmation that the residential development covered by the ZNE Report achieves the ZNE standard specified in this mitigation measure. Specifically, a ZNE Report shall demonstrate that the residential development within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, which requires the value of the net energy produced by project renewable energy resources to equal the value of the energy consumed annually by the project using the CEC's Time Dependent Valuation metric.

  A ZNE Report shall provide, at a minimum, the following information:

  - Confirmation that the residential development shall comply with Title 24, Part 6 building standards that are operative at the time of building permit application.
  - Identification of additional measures or building performance standards that shall be relied upon to achieve the ZNE standard (as defined above), assuming ZNE is not already achieved by meeting the operative Title 24, Part 6 building standards.

[1] The RMDP/SCP Project's geographic boundaries encompass three planning areas: the Newhall Ranch Specific Plan, Valencia Commerce Center, and Entrada.

In demonstrating that the residential development achieves the ZNE standard, the ZNE Report may:

- Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and non-residential buildings within a neighborhood/community, or a subset thereof, including an individual building.
- Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE.
- Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.
- If interconnection of the project's renewable generation is not sufficient to allow compliance with the ZNE standard for the project, or a portion of the project, then Los Angeles County shall allow the project applicant or its designee to achieve an equivalent level of GHG emissions reductions to mitigate such shortfall by providing 5.1 metric tonnes carbon dioxide equivalents ($MTCO_2e$) of GHG reductions for every megawatt-hour of renewable energy generation that would have been needed to achieve the ZNE standard for the project, or a portion of the project, as demonstrated in the ZNE Report.

(*This mitigation measure applies to Entrada South without change, with the qualification that the village-specific equivalency metric is 4.3 (not 5.1) $MTCO_2e$ of GHG reductions for every megawatt-hour of renewable energy generation that would have been needed to achieve the ZNE standard. This mitigation measure is not applicable to Valencia Commerce Center because no residential development is proposed*.)[2]

- **2-2**. Prior to the issuance of building permits for commercial development and private recreation centers, and prior to the commencement of construction for the public facilities, respectively, for the project or a portion of the project, the project applicant or its designee shall submit one or more Zero Net Energy Confirmation Reports (ZNE Report) prepared by a qualified building energy efficiency and design consultant to Los Angeles County for review and confirmation that the commercial development, private recreation centers, and/or public facilities covered by the ZNE Report achieve the ZNE standard specified in this mitigation measure. Specifically, a ZNE Report shall demonstrate that the commercial development, private recreation centers, and public facilities within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations have been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, which requires the value of the net energy produced by project renewable energy resources to equal the value of the energy consumed annually by the project using the CEC's Time Dependent Valuation metric.

[2] This village-specific equivalency metric can be found in Appendix A.

("Commercial development" includes retail, light industrial, office, hotel, and mixed-use buildings. "Public facilities" are fire stations, libraries, and elementary, middle/junior high and high schools.)

A ZNE Report shall provide, at a minimum, the following information:

- Confirmation that the commercial development, private recreation centers, and/or public facilities shall comply with Title 24, Part 6 building standards that are operative at the time of building permit application.
- Identification of additional measures or building performance standards that shall be relied upon to achieve the ZNE standard (as defined above), assuming ZNE is not already achieved by meeting the operative Title 24, Part 6 building standards.

In demonstrating that the commercial development, private recreation centers, and/or public facilities achieves the ZNE standard, the ZNE Report may:

- Evaluate multiple buildings and/or land use types. For example, a ZNE Report may cover all of the residential and non-residential buildings within a neighborhood/community, or a subset thereof, including an individual building.
- Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, short falls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings. As such, a ZNE Report could determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE.
- Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.
- If interconnection of the project's renewable generation is not sufficient to allow compliance with the ZNE standard for the project, or a portion of the project, then Los Angeles County shall allow the project applicant or its designee to achieve an equivalent level of GHG emissions reductions to mitigate such shortfall by providing 5.1 $MTCO_2e$ of GHG reductions for every megawatt-hour of renewable energy generation that would have been needed to achieve the ZNE standard for the project, or a portion of the project, as demonstrated in the ZNE Report.

(This mitigation measure applies to Entrada South and Valencia Commerce Center without change, with the qualification that the village-specific equivalency metric is 4.3 (not 5.1) $MTCO_2e$ of GHG reductions for every megawatt-hour of renewable energy generation that would have been needed to achieve the ZNE standard.)

- **2-3.** Prior to the issuance of private recreation center building permits, the project applicant or its designee shall submit swimming pool heating design plans to Los Angeles County for review and approval. The design plans shall demonstrate that all swimming pools located at private recreation centers on the RMDP/SCP project site have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency.

(This mitigation measure applies to Entrada South without change. This mitigation measure is not applicable to Valencia Commerce Center because no private recreation center is proposed.)

Mobile Sources

- **2-4.** Prior to the issuance of residential building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County for review and approval, which demonstrate that each residence within the RMDP/SCP project site subject to application of Title 24, Part 6, of the California Code of Regulations shall be equipped with a minimum of one single-port electric vehicle (EV) charging station. Each charging station shall achieve a similar or better functionality as a Level 2 charging station.

  Additionally, prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall establish and fund a dedicated account for the provision of subsidies for the purchase of zero emission vehicles (ZEVs), as defined by CARB. The project applicant or its designee shall provide proof of the account's establishment and funding to Los Angeles County.

  The dedicated account shall be incrementally funded, for each village-level project, in an amount that equals the provision of a $1,000 subsidy per residence – on a first-come, first-served basis – for 65 percent of the village's total residences subject to application of Title 24, Part 6, of the California Code of Regulations.

  (This mitigation measure applies to Entrada South without change. This mitigation measure is not applicable to Valencia Commerce Center because no residential development is proposed.)

- **2-5.** Prior to the issuance of commercial building permits, the project applicant or its designee shall submit building design plans, to Los Angeles County, which demonstrate that the parking areas for commercial buildings on the RMDP/SCP project site shall be equipped with electric vehicle (EV) charging stations that provide charging opportunities to 7.5 percent of the total number of required parking spaces. ("Commercial buildings" include retail, light industrial, office, hotel, and mixed-use buildings.)

  The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station. In the event that the installed charging stations use functionality/technology other than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour.

  (This mitigation measure applies to Entrada South and Valencia Commerce Center without change.)

- **2-6**. The project applicant-submitted Newhall Ranch Transportation Demand Management (TDM) Plan, located in Final AEA Appendix 7, shall be implemented to reduce vehicle miles traveled (VMT) resulting from project build out with oversight from Los Angeles County. The TDM Plan is designed to influence the transportation

choices of residents, students, employees, and visitors, and serves to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, expanded transit opportunities, bikeshare and carshare programs, technology-based programs, and other innovative means. Village-level implementation of relevant elements of the TDM Plan shall proceed in accordance with village-level applicability supplements prepared by a qualified transportation engineer that are reviewed and considered by Los Angeles County when approving tentative subdivision maps for land developments that are part of the project.

Accordingly, the TDM Plan identifies key implementation actions that are critical to the effectiveness of the VMT-reducing strategies, as well as timeline and phasing requirements, monitoring standards, and performance metrics and targets tailored to each of the strategies.

In accordance with the TDM Plan, a non-profit Transportation Management Organization (TMO) or equivalent management entity shall be established to provide the services required, as applicable.

(This mitigation measure applies to Entrada South and Valencia Commerce Center without change.)

- **2-7.** Prior to the issuance of traffic signal permits, the project applicant or its designee shall work with Los Angeles County and the California Department of Transportation (Caltrans), as applicable, to facilitate traffic signal coordination along:

  1. State Route 126 from the Los Angeles County line to the Interstate 5 north-bound ramps;
  2. Chiquito Canyon Road, Long Canyon Road, and Valencia Boulevard within the RMDP/SCP Project site;
  3. Magic Mountain Parkway from Long Canyon Road to the Interstate 5 north-bound ramps; and,
  4. Commerce Center Drive from Franklin Parkway to Magic Mountain Parkway.

  To effectuate the signal synchronization and specifically the operational and timing adjustments needed at affected traffic signals, the project applicant or its designee shall submit traffic signal plans for review and approval, and/or pay needed fees as determined by Los Angeles County or Caltrans, as applicable.

  A majority of the signals that will be synchronized will be new signals constructed/installed by the project. Thus, for these signals, the project will provide the necessary equipment at the signal controller cabinet, as well as within the new roadways themselves, to enable and facilitate synchronization. The project is responsible for paying 100 percent of the applicable fee amount for the signal synchronization work, with assurance that the necessary funding will be available to fully implement this measure.

  (This mitigation measure applies to the traffic signals within each project area of Entrada South and Valencia Commerce Center without change.)

- **2-8**. Consistent with the parameters of the Newhall Ranch TDM Plan, the project applicant or its designee shall provide Los Angeles County with proof that funding has been provided for the purchase, operation and maintenance of zero emission school buses in furtherance of the school bus program identified in the project's TDM Plan. The proof of funding shall be demonstrated incrementally as the school bus program is paced to village-level occupancy and student enrollment levels.

  (This mitigation measure applies to Entrada South without change. This mitigation measure is not applicable to Valencia Commerce Center because no residential development is proposed.)

- **2-9.** Prior to the issuance of the first 2,000th residential building permit within the RMDP/SCP project site and every 2,000th residential building permit thereafter, the project applicant or its designee shall provide Los Angeles County with proof that it has provided a subsidy of $100,000 per bus for the replacement of up to 10 diesel or compressed natural gas transit buses with zero emission buses to the identified transit provider(s).

  (The Entrada South Project shall be responsible for its proportional share of the referenced subsidies. This mitigation measure is not applicable to Valencia Commerce Center because no residential development is proposed.)

Construction Sources

- **2-10.** Prior to issuing grading permits for village-level development within the RMDP/SCP project site, Los Angeles County shall confirm that the project applicant or its designee shall fully mitigate the construction and vegetation change GHG emissions associated with each such grading permit (the "Incremental Construction GHG Emissions") by relying upon one of the following compliance options, or a combination thereof, in accordance with the project applicant-submitted Newhall Ranch GHG Reduction Plan (GHG Reduction Plan; see Final AEA Appendix 6):

  - Directly undertake or fund activities that reduce or sequester GHG emissions ("Direct Reduction Activities") and retire the associated "GHG Mitigation Credits" in a quantity equal to the Incremental Construction GHG Emissions. A "GHG Mitigation Credit" shall mean an instrument issued by an Approved Registry that satisfies the performance standards set forth in the GHG Reduction Plan and shall represent the estimated reduction or sequestration of one metric tonne of carbon dioxide equivalent that will be achieved by a Direct Reduction Activity that is not otherwise required (California Environmental Quality Act [CEQA] Guidelines Section 15126.4(c)(3)). An "Approved Registry" is an accredited carbon registry as defined by the GHG Reduction Plan; or

  - Obtain and retire "Carbon Offsets" in a quantity equal to the Incremental Construction GHG Emissions. "Carbon Offset" shall mean an instrument issued by an Approved Registry that satisfies the performance standards set forth in the GHG Reduction Plan and shall represent the past reduction or sequestration of one metric tonne of carbon dioxide equivalent achieved by a Direct Reduction Activity or any other GHG emission reduction project or activity that is not otherwise required (CEQA Guidelines Section 15126.4(c)(3)).

(*This mitigation measure applies to Entrada South and Valencia Commerce Center without change.)*

Local/Off-site Mitigation

- **2-11.** Prior to the issuance of building permits for development within the RMDP/SCP project site, the project applicant or its designee shall undertake or fund Direct Reduction Activities pursuant to the Building Retrofit Program ("Retrofit Program"), as included in Final AEA Appendix 13 to improve the energy efficiency of existing buildings located primarily in disadvantaged communities (as defined in the Retrofit Program). The project applicant or its designee shall retire GHG Mitigation Credits or Carbon Offsets issued by an Approved Registry based on such Direct Reduction Activities in a quantity equal to the sum of the following (together, the "Retrofit Reduction Requirement") as included in Final AEA Appendix 13:
    - For the residential portion of a building permit application, the product of the planned number of residential units for the village-level project multiplied by 0.0377 $MTCO_2e$;
    - For the commercial portion of a building permit application, the product of the planned commercial development per thousand commercial square feet multiplied by 0.0215 $MTCO_2e$. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.)

      Building retrofits covered by the Retrofit Program can include, but are not limited to: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting (including, but not limited to, light bulb replacement), energy efficient appliances, energy efficient windows, pool covers, insulation, and water conservation measures.

      The Retrofit Program shall be implemented within the geographic area defined to include Los Angeles County and primarily within disadvantaged communities, as defined by the Retrofit Program, or in other areas accepted by the Los Angeles County Planning Director.

  (This mitigation measure applies to Entrada South without change. This mitigation measure applies to Valencia Commerce Center without change, other than that the residential portion of this mitigation measure does not apply to the Valencia Commerce Center because no residential development is proposed.)

- **2-12.** Prior to the issuance of the first building permit for the RMDP/SCP project site, the project applicant or its designee shall provide Los Angeles County with proof of installation of EV charging stations capable of serving 20 off-site parking spaces. Thereafter, the project applicant or its designee shall provide Los Angeles County proof of installation of EV charging stations prior to the issuance of residential and commercial building permits per the following ratios: one (1) off-site parking space shall be served by an electric vehicle charging station for every 30 dwelling units, and one (1) off-site parking space shall be served by an electric vehicle charging station for every 7,000 square feet of commercial development. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) Off-site EV charging stations capable of servicing 2,036 parking spaces would be required if the maximum allowable development facilitated by the RMDP/SCP project

occurs; fewer EV charging stations would be required if maximum build-out under the RMDP/SCP project does not occur.

The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station and may service one or more parking spaces. In the event that the installed charging stations use functionality/technology other than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour.

The EV charging stations shall be located within the geographic area defined to include Los Angeles County. The EV charging stations shall be in areas that are generally accessible to the public, such as areas that include, but are not limited to, retail centers, employment centers and office complexes, recreational facilities, schools, and other categories of public facilities.

(This mitigation measure applies to Entrada South without change. This mitigation measure applies to Valencia Commerce Center without change, other than that the residential portion of this mitigation measure does not apply to the Valencia Commerce Center because no residential development is proposed.)

- **2-13.** In addition to Mitigation Measures 2-1 through 2-12, the project applicant or its designee shall offset GHG emissions to zero by funding or undertaking Direct Reduction Activities or, if necessary, obtaining Carbon Offsets through the Newhall Ranch GHG Reduction Plan. The project applicant-submitted Newhall Ranch GHG Reduction Plan focuses on achieving GHG reductions or sequestration through the Direct Reduction Activities in coordination with an Approved Registry, such as the Climate Action Reserve. If these Direct Reduction Activities do not achieve the necessary amount of GHG reductions, the project applicant or its designee can obtain Carbon Offsets issued by an Approved Registry.

  Prior to issuing building permits for development within the RMDP/SCP project site, Los Angeles County shall confirm that the project applicant or its designee shall fully offset the project's remaining (i.e., post implementation of Mitigation Measures 2-1 through 2-12) operational GHG emissions over the 30-year project life associated with each such building permit (the "Incremental Operational GHG Emissions") by relying upon one of the following compliance options, or a combination thereof, in accordance with the Newhall Ranch GHG Reduction Plan:

  - Undertake or fund Direct Reduction Activities that are estimated to result in GHG Mitigation Credits, as described in the GHG Reduction Plan, and retire such GHG Mitigation Credits in a quantity equal to the Incremental Operational GHG Emissions;
  - Undertake or fund Direct Reduction Activities and retire the Carbon Offsets in a quantity equal to the Incremental Operational GHG Emissions; or
  - If necessary, as determined by the Los Angeles County Planning Director in accordance with the GHG Reduction Plan, to fully offset Incremental Operational

GHG Emissions, the project applicant or its designee may purchase and retire Carbon Offsets that have been issued by an Approved Registry in a quantity equal to the Incremental Operational GHG Emissions.

Compliance with Mitigation Measure (MM) 2-13 shall be demonstrated incrementally prior to obtaining building permits.

The incremental Operational GHG Emissions shall be equal to the sum of (1) the number of proposed residential units covered by the applicable building permit multiplied by a "GHG Residential Ratio" and (2) every thousand square feet of proposed commercial development covered by the applicable building permit multiplied by a "GHG Commercial Ratio." ("Commercial development" includes retail, light industrial, office, hotel, and mixed-use buildings.) GHG Residential Ratio and GHG Commercial Ratio shall mean the emissions ratios in $MTCO_2e$ set forth in the applicable CEQA analysis completed by the County of Los Angeles for a specific village-level project to ensure that the related GHG emissions are reduced to zero.

(This mitigation measure applies to Entrada South without change. This mitigation measure applies to Valencia Commerce Center without change, other than that the residential portion of this mitigation measure does not apply to the Valencia Commerce Center because no residential development is proposed.)

Supplemental Commitment

In connection with the RMDP/SCP project, the applicant set forth a supplemental commitment that CDFW incorporated into the RMDP/SCP project's Mitigation Monitoring and Reporting Plan. That supplemental commitment is set forth in full below, with an italicized parenthetical that explains its application to the Modified Project. The supplemental commitment further reduces GHG emissions beyond the net zero emissions calculated above.

- In addition to the installation of EV charging stations required by Mitigation Measures 2-5 and 2-12, and although not required for the project to achieve net zero GHG emissions, the project applicant or its designee shall provide Los Angeles County with proof of installation of EV charging stations prior to the issuance of residential and commercial building permits per the following ratios: one (1) parking space shall be served by an electric vehicle charging station for every 50 dwelling units, and one (1) parking space shall be served by an electric vehicle charging station for every 15,900 square feet of commercial development. ("Commercial development" includes retail, light industrial, office, hotel and mixed-use buildings.) EV charging stations capable of servicing 1,010 parking spaces would be required if the maximum allowable development facilitated by the RMDP/SCP project occurs; fewer EV charging stations would be required if maximum build-out under the RMDP/SCP project does not occur.

  The EV charging stations shall achieve a similar or better functionality as a Level 2 charging station and may service one or more parking spaces. In the event that the installed charging stations use functionality/technology other than Level 2 charging stations, the parameters of the mitigation obligation (i.e., number of parking spaces served by EV charging stations) shall reflect the comparative equivalency of Level 2 charging stations to the installed charging stations on the basis of average charge

rate per hour. For purposes of this equivalency demonstration, Level 2 charging stations shall be assumed to provide charging capabilities of 25 range miles per hour.

The EV charging stations shall be located either on the project site or within the jurisdictional area of the Southern California Association of Governments. The EV charging stations shall be in areas that are generally accessible to the public, such as areas that include, but are not limited to, retail centers, employment centers and office complexes, recreational facilities, schools, and other categories of public facilities.

(This supplemental commitment applies to Entrada South without change. This mitigation measure applies to Valencia Commerce Center without change, other than that the residential portion of this mitigation measure does not apply to the Valencia Commerce Center because no residential development is proposed.)

2.2 Description of Project Modifications

Entrada South: The proposed incremental changes in Entrada South, as compared to the 2017 Approved Project analyzed in the State-certified EIR, include:

Enhanced Environmental Protections. The Modified Project increases environmental protections to wetlands and related biological resources within the Entrada Planning Area that result in increased open space, restored drainage areas, and habitat for species as compared to that evaluated in the State-certified EIR.

Refinements to the Balance of Residential and Non-Residential Development. The State-certified EIR for the 2017 Approved Project evaluated the environmental impacts of 1,725 dwelling units, 450,000 square feet of non-residential development, a public facilities area for a neighborhood park and a potential school site, private recreational amenities, a spineflower preserve, and trails and infrastructure within the Entrada Planning Area. The County's adopted One Valley One Vision Plan land use designations for the Project site authorize 1,524 dwelling units and 730,000 square feet of non-residential land uses. The Modified Project includes a reduction in residential units to conform to the One Valley One Vision Area Plan, resulting in 1,574 dwelling units and a corresponding increase to 730,000 square feet of non-residential development, a public park and potential school site, a spineflower preserve, and trails and infrastructure within the Entrada Planning Area. As such, this analysis considers the GHG and energy implications of reducing the number of residences by 151 units and increasing the amount of non-residential land use by 280,000 square feet.

The Entrada South land uses modeled for this analysis are summarized below in **Table 1**.

Table 1. Entrada South Land Uses

Modified Project	CalEEMod® Analysis				
	CalEEMod® Land Use Subtype	State-Certified EIR	Modified Project	Incremental Land Use	Size Metric
Condo/Townhouse General	Condo/Townhouse	1,725	1,574	-151	DU
Mixed-Use Commercial	Regional Shopping Center/ Office Park	450	730	280	TSF
Elementary School	Elementary School	750	750	0	STU
Public Neighborhood Park and Private Recreational Center	City Park	5.0	5.0	0	Acre
	Recreational Center*	2.5	2.5	0	TSF

Abbreviations:

CalEEMod® = California Emissions Estimator Model

DU = dwelling unit

STU = students

TSF = thousand square feet

* Recreational centers referenced as "health clubs" as a land use subtype in CalEEMod.

Valencia Commerce Center (VCC): As relevant background, VCC was approved for development by Los Angeles County through the issuance of various entitlements and certification of an EIR (SCH No. 1987-123005) in 1991 (referred to herein as the County-certified VCC EIR), which is incorporated by reference. The County's existing entitlement allows approximately 12.6 million square feet of industrial/business park space at build-out, of which approximately 9 million square feet has been constructed.

The VCC Planning Area evaluated herein is comprised of approximately 321 acres of an undeveloped portion of the partially completed VCC industrial/business park center. The VCC Planning Area will be developed with up to 3.4 million square feet of non-residential development under the Modified Project, consistent with the development of the VCC Planning Area assumed in the State-certified EIR. The VCC Planning Area development will be consistent with the existing County entitlements and Zoning Code; therefore, the Modified Project does not result in a change to the amount or nature of the development associated with the 2017 Approved Project.

The proposed minor changes and refinements under the Modified Project, as compared to the 2017 Approved Project analyzed in the State-certified EIR, include:

Enhanced Environmental Protections. The proposed minor changes and refinements within the VCC Planning Area include additional environmental protections for wetlands and related biological resources within the VCC Planning Area through a reduction in permanent impacts to Hasley Creek and Castaic Creek. This environmentally beneficial

modification would result in increased open space, restored drainage areas, and habitat for species.

The Valencia Commerce Center land uses modeled for this analysis are summarized below in **Table 2**.

Table 2. Valencia Commerce Center Land Uses

Modified Project	CalEEMod® Analysis				
	CalEEMod® Land Use Subtype	**State-Certified EIR**	**Modified Project**	**Incremental Land Use**	**Size Metric**
Industrial Park/Business Park	Industrial Park/Office Park	3,400	3,400	0	TSF

Abbreviations:
CalEEMod® = California Emissions Estimator Model
DU = dwelling unit
STU = students
TSF = thousand square feet

2.3 Regulatory Setting

The State-certified EIR included a Regulatory Setting section that discussed key federal, state, and local regulations and programs related to GHG emissions resulting from the 2017 Approved Project. (See State-certified EIR, Section 2.2.) This section incorporates the State-certified EIR Section 2.2 by reference and provides these updates.

2.3.1 Federal

Update to Fuel Economy Standards. In September 2019, the Trump Administration adopted Part 1 of the Safer Affordable Fuel Efficient Vehicles (SAFE) Rule, which rescinded the waiver the U.S. Environmental Protection Agency (EPA) granted California to regulate vehicle greenhouse gas emissions and to implement a zero-emission vehicle program. In March 2020, as Part 2 of the SAFE Rule, the EPA completed updated GHG and fuel economy standards for passenger cars and light trucks and established new, less stringent standards covering model years 2021 through 2026. With the release of EO 13990, the Biden Administration has ordered all relevant federal agencies, including the EPA, to review environmental regulations that were adopted by the Trump Administration. These agencies are to consider suspending, revising, or rescinding those that are inconsistent with the Biden Administration's agenda on climate policy.[3] In accordance with EO 13990, the SAFE Rule is subject to ongoing litigation and on February 8, 2021, the D.C. Circuit Court of Appeal granted the Biden Administration's motion to stay litigation over Part 1 of the SAFE Rule. In April 2021, EPA announced that

[3] Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/. Accessed: March 2021.

it would formally review the SAFE Rule, which could lead to California being able to set its own car emissions standards again.[4]

Rescission of Clean Power Plan. In June 2019, the EPA issued the final Affordable Clean Energy rule, which became effective in August 2019. It officially rescinded the Clean Power Plan rule issued during the Obama Administration and set emissions guidelines for states in developing plans to limit CO_2 emissions from coal-fired power plants. However, on January 19, 2021, the D.C. Circuit Court of Appeals vacated the Affordable Clean Energy rule and remanded it to the EPA to revise the regulations.

2.3.2 State

Cap-and-Trade Extension. The cap-and-trade program was first slated to sunset in 2020, but the passage of Assembly Bill (AB) 398 in 2017 extended the program through 2030.[5]

SB 100. On September 10, 2018, Governor Jerry Brown signed SB 100, which further increased California's Renewables Portfolio Standard and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, and that the California Air Resources Board ("CARB") should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.[6]

Scoping Plan and Implementation. In December 2017, CARB adopted the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) to address the 2030 target for the State. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO2e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030. In 2018, CARB issued a Progress Report that concluded that California was not on track to meet the greenhouse gas reductions expected under SB 375 for 2020 and additional steps were needed to meet VMT reduction goals.[7] In September 2020, CARB held a public workshop to solicit input on its development of the Advanced Clean Cars II regulations, which will seek to reduce criteria and greenhouse gas emissions from new light- and medium-duty vehicles beyond the 2025 model year, and increase the number of zero emission vehicles for sale. In February 2021, the State Auditor issued a report that CARB had not adequately supported the cost-effectiveness of its electric vehicle incentive programs relative to its regulatory programs, to which CARB responded with measures intended to address the Auditor's findings.[8] In February 2021, the D.C. Circuit Court of Appeal granted the Biden Administration's motion to stay litigation over Part 1

[4] Available at: https://www.epa.gov/newsreleases/epa-reconsiders-previous-administrations-withdrawal-californias-waiver-enforce. Accessed: April 2021.

[5] Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398. Accessed: March 2021.

[6] Available at: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100. Accessed: March 2021.

[7] Available at: https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf. Accessed: March 2021.

[8] Available at: http://auditor.ca.gov/pdfs/reports/2020-114.pdf?mc_cid=d8efa40eae&mc_eid=d16aa0f2e1. Accessed: March 2021.

of the SAFE Rule, which had rescinded the waiver EPA granted California to regulate vehicle GHG emissions and to implement a zero emission vehicle program.

Executive Order B-55-18. Executive Order B-55-18, signed by Governor Brown on September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter."[9]

Executive Order N-79-20. On September 23, 2020, Governor Newsom signed Executive Order N-79-20, which directs CARB to develop and propose regulations that would require a ramp up to 100% in-state sales of new zero-emission passenger vehicles (cars and trucks) and drayage trucks by 2035. It also directs CARB to promulgate regulations that would require a ramp up to 100% in-state sales of medium- and heavy-duty trucks by 2045 "for all operations where feasible."[10]

Update to SB 375 Targets. Beginning October 1, 2018, the SB 375 emissions reduction target for SCAG changed to 19 percent for 2035.[11]

Update to Low Carbon Fuel Standard. In September 2018, CARB amended the standards to require a 20 percent reduction in carbon intensity of fuels by 2030, aligning with California's 2030 targets set by SB 32.[12]

Title 24 Energy Efficiency Standards. The 2019 Standards went into effect on January 1, 2020, and improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings.[13] The California Green Building Standards Code was recently updated as part of the Title 24 Building Energy Efficiency Standards and became effective on January 1, 2020, includes both voluntary and mandatory energy efficiency standards for commercial and residential buildings.

2.3.3 Regional/Local

Sustainable Communities Strategy. On September 1, 2020, SCAG's Regional Council adopted an updated Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) known as the 2020– 2045 RTP/SCS or Connect SoCal. The SB 375 emissions reduction target for the Southern California region under SCAG's jurisdiction in 2035 was updated to a reduction in per capita GHG emissions of 19 percent. This new target was incorporated into Connect SoCal.[14]

Los Angeles Countywide Sustainability Plan. The County of Los Angeles adopted the "Our County Los Angeles Countywide Sustainability Plan" in August 2019 that considered

[9] Available at: https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf. Accessed: March 2021.

[10] Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=235717&DocumentContentId=68659. Accessed: March 2021.

[11] Available at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: March 2021.

[12] Available at: https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/lcfs-regulation. Accessed: March 2021.

[13] Available at: https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed: March 2021.

[14] Available at: https://www.connectsocal.org/Pages/Connect-SoCal-Final-Plan.aspx. Accessed: March 2021.

long-term sustainability planning goals within Los Angeles County. The plan is a set of non-binding goals, strategies, and actions.[15]

Los Angeles County Climate Action Plan. The County of Los Angeles released a draft of the Los Angeles County Climate Action Plan (CAP) for public review in March 2020. The LA County CAP targets carbon neutrality within the County by 2045. The County aims to release a revised public draft of the CAP and an accompanying EIR later this year.[16]

[15] Available at: https://ourcountyla.lacounty.gov/. Accessed: March 2021.

[16] Available at: https://planning.lacounty.gov/assets/upl/case/2019-002015_cap-public-review-draft.pdf. Accessed: April 2021.

3. GREENHOUSE GAS IMPACTS

This section evaluates the potential significance of the Modified Project's GHG emissions by reference to the following questions from Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines:[17]

Threshold 1. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The following sections assess the potential significance of the Modified Project's greenhouse gas emissions for purposes of CEQA.

3.1 Methodology

The methodology used to quantify GHG emissions for the Modified Project is consistent with the methodology used in the State-certified EIR. The Modified Project analyzes emissions using the newest approved versions of estimator models; i.e., CalEEMod® version 2016.3.2[18] was used to calculate operational GHG emissions. The mobile emission factors in CalEEMod® v2016.3.2 are based on the CARB EMFAC2014 program. However, EMFAC2017[19] was released by CARB in December 2017 and approved by the US EPA in August 2019.[20] Therefore, EMFAC2017 emission factors have been incorporated into the analysis for the Modified Project. **Appendix A**, CalEEMod® outputs, shows the updated analysis for Entrada South.

3.2 Construction Emissions

Construction emissions associated with the Modified Project would not exceed the emissions reported in the State-certified EIR. For Entrada South, the Project footprint for horizontal construction or earthwork (e.g., site preparation, grading, demolition, and utilities installation) remains consistent with the analysis reported in the State-certified EIR. Therefore, the construction emissions from those sub-phases of construction are not anticipated to increase due to the Modified Project. Furthermore, while the Modified Project will result in a change in land use sub-types compared to what was assumed in the State-certified EIR, the overall square footage of development would be approximately the same under the Modified Project and the amount of vertical construction evaluated in the State-certified EIR was conservatively represented, as described further below. Thus, the calculated construction emissions for the vertical construction also is not expected to increase.

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[17] CEQA Appendix G: Environmental Checklist Form. Available at: http://resources.ca.gov/ceqa/docs/ab52/final-approved-appendix-G.pdf. Accessed: July 2019.

[18] SCAQMD. 2016. California Emissions Estimator Model®. Available at: http://www.CalEEMod.com/. Accessed: March 2021.

[19] CARB. 2017. Emission Factor Model. Available at: https://arb.ca.gov/emfac/emissions-inventory. Accessed: March 2021.

[20] The USEPA published a notice of availability for the official release of EMFAC2017 motor vehicle emission factor model use in the state of California. Available at: https://www.federalregister.gov/documents/2019/08/15/2019-17476/official-release-of-emfac2017-motor-vehicle-emission-factor-model-for-use-in-the-state-of-california. Accessed: March 2021.

The State-certified EIR very conservatively assumed that construction equipment mixes for all years were the same as the year with the maximum amount of construction for each sub-phase, even though the non-maximum years would have reduced construction equipment mixes. For example, although the building construction sub-phase spans multiple years, the off-road equipment mix for every year is assumed to be equal to that needed for the year with the most construction. Given this conservative assumption, the construction modeling parameters in the non-maximum years assumed more construction activity than was expected to be needed, and total GHG emissions were overestimated. In addition, the mix of construction equipment is expected to get cleaner over time (i.e., generate fewer emissions on average) as older equipment is replaced or repowered.

For Entrada South, the land use mix associated with the Project modifications involves an increase in commercial square footage (from 450,000 square foot (SF) to 730,000 SF) and a reduction in residential development (from 1,725 units to 1,574 units, or from 3,235,100 SF to 2,951,913 SF).[21] These Project modifications would result in approximately the same overall floor area ratio (FAR) as that assumed in the State-certified EIR.[22] Therefore, the type and number of construction equipment and the related construction intensity would fall within the envelope of construction activity that was previously analyzed, and the Project modifications for Entrada South would not increase construction emissions relative to those disclosed in the State-certified EIR.

For VCC, the Project would not change the Project footprint, proposed land uses, nor the total building square footage compared to what was assumed in the State-certified EIR. Therefore, construction emissions from all aspects of VCC are not anticipated to increase.

In summary, construction GHG emissions from the Modified Project will not result in any new or more severe significant impacts. As described above, neither the horizontal or vertical construction activities are expected to increase construction emissions. Total GHG emissions are 12,403 MT CO_2e for Entrada South and 13,386 MT CO_2e for VCC, as calculated in the State-certified EIR.[23] The emissions are amortized over 30 years and shown in **Tables 3** and **4** below. Importantly, the mitigation framework from the State-certified EIR will apply to the Modified Project and therefore there will not be any net increase in GHG emissions. Specifically, mitigation measure 2-10 from the State-certified EIR requires construction GHG emissions to be mitigated to zero. This mitigation measure will continue to apply to the Modified Project, and therefore net GHG emissions during construction will remain zero. Accordingly, construction-related GHG impacts will continue to be less than significant.

[21] The square footage totals for the residential units referenced in the parenthetical are calculated based on an average unit size of 1,875 square feet.

[22] The 2017 Approved Project included an estimated 3,685,100 SF of development area within the Entrada planning area (450,000 SF of commercial development and 3,235,100 SF of residential development). The Modified Project would include an estimated 3,681,913 SF of development area within the Entrada planning area (730,000 SF of commercial development and 2,951,913 SF of residential development). As such, the Modified Project would result in a net reduction of approximately 3,187 SF of development area within the Entrada planning area when compared to the 2017 Approved Project.

[23] See Tables 2-7 through 2-9 of Draft Additional Environmental Analysis for Stages 5 and 6 construction, Appendix 1 (Ramboll, 2016. Greenhouse Gas Emissions Technical Report and Appendices). Available at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133612.

3.3 Operational Emissions

The State-certified EIR disclosed unmitigated operational GHG emissions for Entrada South and Valencia Commerce Center and mitigated operational GHG emissions for the overall RMDP/SCP Project. Operational GHG emissions sources analyzed in the State-certified EIR include the following categories:

- Area sources: Combustion emissions from landscaping equipment.
- Building energy use: Indirect emissions from electricity production and direct emissions from natural gas combustion.
- Water use: Indirect emissions from electricity need to supply, treat, and distribute water and wastewater; and direct emissions from wastewater.
- Solid waste: Direct emissions from solid waste disposal.
- Traffic: Starting, running, and idling emissions from vehicle use.

To evaluate greenhouse gas impacts, this methodology analyzes estimated emissions for the changes associated with the Modified Project. The State-certified EIR utilized an earlier version of the emissions estimation model — the CalEEMod® version 2013.2.2 model. Currently, the South Coast Air Quality Management District (SCAQMD) and Los Angeles County recommend using CalEEMod® version 2016.3.2 to estimate emissions. The updated CalEEMod® modeling utilizes land use subtypes that are consistent with those presented in the Modified Project's traffic analysis; these subtypes provide the most current representation of the anticipated development mix for the Modified Project Area. In addition, changes in regulations such as the Title 24 Building Energy Efficiency Standards and Renewable Portfolio Standard electricity requirements have occurred since the 2017 Approved Project analyses. Accordingly, this analysis accounts for these modeling changes and discloses any changes in emissions associated with the changes in the Modified Project.

Unmitigated emissions from the State-certified EIR and a brief description of changes due to the Modified Project for Entrada South are shown in **Table 3**, and for Valencia Commerce Center are shown in **Table 4**. (The one-time change in vegetation sequestration or carbon release is also included in **Table 3** and **Table 4**.) As illustrated in **Tables 3** and **4**, unmitigated operational GHG emissions from the Modified Project are expected to be slightly higher than those disclosed in the State-certified EIR. Emissions from some source categories will decrease due to increasingly stringent statewide regulatory requirements, while emissions from other source categories may increase or decrease as a result of the Modified Project's refined land use mix.

Table 3. Unmitigated Entrada South GHG Emissions from the State-Certified EIR and the Modified Project (MT CO_2e/yr)

Category	State-Certified EIR [a]	Total Estimated Emissions	Incremental Change from Modified Project	Discussion
Area	30	27	-3	Reduction in residential units
Building Energy	4,835	2,783	-2,051	Refinements to the balance of residential and non-residential development; adoption of 2019 Title 24 standards; enactment of Senate Bill 100's (SB100) expanded and accelerated Renewables Portfolio Standard
Water	1,295	619	-677	Reduced water demand estimate and SB100 requirements
Solid Waste	1,438	2,570	+1,132	Refinements to the balance of residential and non-residential development; more recent CalRecycle solid waste disposal data
Traffic	26,294	30,080	+3,786	Refinements to the balance of residential and non-residential development; acceptance by USEPA of EMFAC2017 model
Sub-Total	33,892	36,079	+2,188	
Construction Amortized	413	413	0	No change
Vegetation Amortized[b]	28	19	-9	Reduced land disturbance associated with environmental protections
Total Unmitigated	**34,333**	**36,512**	**+2,179**	
Total Mitigated (see Table 5, below)	**0**	**0**	**0**	Mandatory mitigation measures from the State-certified EIR, which was reviewed and approved by the California Air Resources Board, apply to the Modified Project to ensure that onsite emissions are reduced to the extent feasible and remaining emissions are reduced to zero through the GHG Reduction Plan.

Table 3. Unmitigated Entrada South GHG Emissions from the State-Certified EIR and the Modified Project (MT CO_2e/yr)

Category	State-Certified EIR [a]	Total Estimated Emissions	Incremental Change from Modified Project	Discussion
Supplemental EV Charger Commitment	**-1,499**	**-1,499**	**Same supplemental EV charger commitment as the State-Certified EIR**	GHG reductions from the Applicant's Supplemental EV Charger Commitment were in addition to the thirteen mitigation measures that reduced the project to net-zero GHG emissions. Therefore, the Project further reduced GHG emissions below net zero.

Notes:

[a] See Table ES-2 of Draft AEA, Appendix 1 (Ramboll, 2016. Greenhouse Gas Emissions Technical Report and Appendices). Available at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133612.

[b] One-time vegetation emissions were calculated as shown in **Appendix A** and amortized over 30 years.

Abbreviations:

MT CO_2e – metric tons of carbon dioxide equivalents

yr – year

Table 4. Unmitigated Valencia Commerce Center Operational GHG Emissions from the State-Certified EIR and the Modified Project (MT CO_2e/yr)

Category	State-Certified EIR [a]	Total Estimated Emissions	Incremental Change from Modified Project	Discussion
Area	0.09	0.09	0	No change
Building Energy	9,155	9,155	0	No change (Note that if quantified, enactment of Senate Bill 100's (SB100) expanded and accelerated Renewables Portfolio Standard would decrease emissions from energy usage)
Water	516	516	0	No change (Note that if quantified, enactment of Senate Bill 100's (SB100) expanded and accelerated Renewables Portfolio Standard would decrease emissions from energy usage for water conveyance)
Solid Waste	3,601	3,601	0	No change
Traffic	22,963	22,963	0	No change
Sub-Total	**36,234**	**36,234**	**0**	
Construction Amortized	446	446	0	No change
Vegetation Amortized[b]	-5	-49	-44	Reduced land disturbance associated with environmental protections would create additional carbon sequestration.
Total Unmitigated	**36,676**	**36,627**	**0**	
Total Mitigated (see Table 5, below)	**0**	**0**	**0**	Mandatory mitigation measures from the State-certified EIR, which was reviewed and approved by the California Air Resources Board, apply to the Modified Project to ensure that onsite emissions are reduced to the extent feasible and remaining emissions are reduced to zero through the GHG Reduction Plan.

Table 4. Unmitigated Valencia Commerce Center Operational GHG Emissions from the State-Certified EIR and the Modified Project (MT CO_2e/yr)

Category	State-Certified EIR [a]	Total Estimated Emissions	Incremental Change from Modified Project	Discussion
Supplemental EV Charger Commitment	**-4,166**	**-4,166**	**Same supplemental EV charger commitment as the State-Certified EIR**	GHG reductions from the Applicant's Supplemental EV Charger Commitment were in addition to the thirteen mitigation measures that reduced the project to net-zero GHG emissions. Therefore, the project further reduced emissions below net zero.

Notes:

[a] See Table ES-2 of Draft AEA, Appendix 1 (Ramboll, 2016. Greenhouse Gas Emissions Technical Report and Appendices). Available at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=133612.

[b] Based on a calculation from the CalEEMod® users guide.

Abbreviations:

MT CO_2e – metric tons of carbon dioxide equivalents

N/A – not applicable

yr – year

Overall, the total unmitigated emissions from the Modified Project are expected to increase very slightly relative to the emissions previously presented in the State-certified EIR, i.e., an increase of approximately 3%. However, as shown below, with continued implementation of Mitigation Measures 2-1 through 2-13, the Mitigated Modified Project's net GHG emissions after mitigation would be reduced to zero. Mitigation Measures 2-1 through 2-13 were reviewed and approved by CARB, which confirmed that the evidence supported a conclusion that the mitigation measures would reduce GHG emission to net zero.[24] As a result, the Modified Project as mitigated would have no net increase in GHG emissions and would not have a significant impact on global climate change for purposes of Threshold 1. In addition, with the Supplemental EV Charger Commitment would result in GHG reductions of 1,499 $MTCO_2e$/year and 4,166 $MTCO_2e$/year beyond the net zero for Entrada South and Valencia Commerce Center, respectively. The GHG mitigation measures are summarized in **Table 5**.

[24] See State-certified EIR, Final Additional Environmental Analysis, Appendix 1; Final Actions and Supplemental Findings of the California Department of Fish and Wildlife for the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan, June 14, 2017, Section II.

Table 5. Application of Net Zero Newhall Mitigation Framework to Modified Project

Mitigation Measure	Mitigation Measure Description	Applies to Modified Project?
MM 2-1	Residential Zero Net Energy	Yes
MM 2-2	Commercial Zero Net Energy	Yes
MM 2-3	Swimming Pool Heating	Yes
MM 2-4	Residential EV Chargers and Vehicle Subsidy	Yes
MM 2-5	Commercial Development Area EV Chargers	Yes
MM 2-6	Transportation Demand Management Plan	Yes
MM 2-7	Traffic Signal Synchronization	Yes
MM 2-8	Electric School Bus Program	Yes
MM 2-9	Electric Transit Bus Subsidy	Yes
MM 2-10	GHG Reduction Plan – Construction/Vegetation	Yes
MM 2-11	Building Retrofit Program	Yes
MM 2-12	Off-Site EV Chargers	Yes
MM 2-13	GHG Reduction Plan – Operations	Yes

As shown in **Table 5**, the mitigation measures will all apply to the Modified Project and address the categories of GHG emissions for the Modified Project (i.e., building energy, area and mobile sources). These mitigation measures reduce the onsite GHG emissions as feasible, and MM 2-10 and 2-13 ensure that remaining Project emissions are addressed such that there is no net increase of GHG emissions from the Modified Project. Thus, construction and operational GHG emissions from the Modified Project will not cause a net increase in GHG after mitigation and will not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.[25] Therefore, the Modified Project will not result in a new significant environmental effect relative to Threshold 1 or Threshold 2.

[25] The State-certified EIR concluded that relevant plans for the reduction of greenhouse gases establish non-zero targets (i.e., some level of positive net emissions above existing conditions for land developments to accommodate planned growth). By achieving net zero emissions, the 2017 Approved Project would not conflict with any relevant plan, policy or regulation. The Project modifications would not affect these conclusions.

4. ENERGY IMPACTS

4.1 Background

The Modified Project would consume energy in the form of gasoline and diesel fuel, electricity, and natural gas and will produce energy in the form of electricity from on-site solar panels. Consistent with the GHG discussion above, the minor modifications in land use type, distribution, and floor area may result in slight changes in the amount of energy associated with building operations and transportation compared to that identified in the State-certified EIR. As the construction intensity and duration are not expected to change, the Project modifications are not expected to result in changes in energy consumed during construction.

The State-certified EIR studied impacts to global climate change and, due to the relationship between energy consumption and the release of GHG emissions, considered the energy implications of development within the Entrada and VCC planning areas. The State-certified EIR included numerous mitigation measures to increase the energy efficiency of development and thereby reduce energy demand, including Mitigation Measures 2-1 and 2-2 (requiring Zero Net Energy design for residential and non-residential development areas), 2-3 (requiring solar water heating or equivalent technology for swimming pools at private recreation centers), 2-4 and 2-5 (requiring extensive charging infrastructure for zero emission vehicles throughout on-site residential and non-residential development areas), 2-6 through 2-9 (requiring transportation-related commitments, such as implementation of a Transportation Demand Management Plan, traffic signal synchronization, and funding to convert bus fleets to zero emissions technology), 2-11 (requiring implementation of an off-site building retrofit program), and 2-12 (requiring charging infrastructure for zero emission vehicles at off-site locations). As discussed below, the mitigation framework avoids the wasteful, inefficient or unnecessary consumption of energy resources by reducing energy consumption in the built environment via exceedance of code-based standards; relying on renewable energy sources; and encouraging and incentivizing the use of zero emission vehicles.

4.2 Analysis

This section evaluates the significance of the Modified Project's energy by reference to the following questions from Section VI, Energy, of Appendix G of the CEQA Guidelines:[26]

Threshold 1. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Threshold 2. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Part I of Appendix F of the CEQA Guidelines states as follows: "The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include: decreasing overall per capita energy consumption, decreasing reliance on fossil fuels such as coal, natural gas and oil, and increasing reliance on renewable energy resources." Appendix F of the CEQA Guidelines also states that an EIR should include a discussion of the potential

[26] CEQA Appendix G: Environmental Checklist Form. Available at: http://resources.ca.gov/ceqa/docs/ab52/final-approved-appendix-G.pdf. Accessed: May 2019.

energy impacts of a project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

For purposes of this analysis, impacts to energy resources will be considered significant if the Modified Project would result in the wasteful, inefficient or unnecessary consumption of fuel or energy, and conversely if the Modified Project would not incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation or other project features. To determine whether the Project modifications would result in the wasteful, inefficient or unnecessary consumption of fuel or energy, and conversely whether the Project modifications would fail to incorporate renewable energy or energy efficiency measures into building design, equipment use, transportation or other project features, reference was made to Appendix F of the CEQA Guidelines, which identifies six categories of potential energy-related environmental impacts:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The following sections assess the significance of the Modified Project's energy demand for purposes of CEQA.

4.3 Construction

Construction activities consume energy in the form of diesel and gasoline fuel for on-road vehicles and off-road construction equipment, and electricity for construction equipment and water supply; all of these activities generate GHG emissions. Accordingly, fuel use and GHG emissions can be calculated from construction equipment assumptions using standard modeling software (e.g., CalEEMod®). For example, an increase in equipment use or intensity would increase fuel use, with a corresponding increase in GHG emissions. The State-certified EIR disclosed the unmitigated total amounts of on-road and off-road construction equipment and vehicle use for Entrada South and Valencia Commerce Center. As described in more detail in the GHG discussion above, construction emissions for the Modified Project would not increase compared to construction emissions reported in the State-certified EIR because the Modified Project would involve the same types and number of construction equipment use as compared to the State-certified EIR's analysis of the 2017 Approved Project. Likewise, as discussed below, the Modified Project would not increase construction energy use as compared to the State-certified EIR.

Project construction requires use of on-road trucks for hauling and vendor deliveries, and off-road equipment such as excavators, cranes, forklifts, and pavers. The Modified Project would comply with State and local requirements designed to minimize idling and associated

emissions, which also minimize use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation, and the trucks used would be compliant with the requirements of the Tractor-Trailer Greenhouse Gas Regulation. Furthermore, mitigation measure AQ-2 in the State-certified EIR prohibits truck idling in excess of five minutes.

For Entrada South, the Modified Project's footprint for horizontal construction (e.g., site preparation, grading, demolition, and utilities installation) would remain consistent. Therefore, the construction energy use associated with those sub-phases of construction is not anticipated to increase under the Modified Project as compared to the to the 2017 Approved Project. Furthermore, while the Modified Project would result in a change in land use sub-types compared to what was assumed in the State-certified EIR, the overall square footage of development would be approximately the same under the Modified Project and the amount of vertical construction evaluated in the State-certified EIR was conservatively represented assuming the maximum year of off-road equipment would be used in all construction years for each construction phase, as described further above. Thus, the construction energy use for vertical construction also is not expected to increase under to the Modified Project as compared to the 2017 Approved Project.

For VCC, the Modified Project will not change the Project footprint, proposed land uses, nor the total building square footage compared to what was assumed in the State-certified EIR. Therefore, the construction energy use from all aspects of VCC are not anticipated to change.

As discussed above, the State-certified EIR included conservative assumptions about the mix of construction equipment that would be used during construction. Actual average construction equipment use is expected to be lower than the peak construction equipment use considered in the State-certified EIR.

Overall, construction energy use for the Modified Project is not expected to increase compared to the 2017 Approved Project. Energy use and fuel efficiency for construction is expected to improve over time as older equipment is replaced and repowered; therefore, fuel and energy efficiency for the Modified Project is expected to be the same or better than the efficiencies assumed in the State-certified EIR. Additionally, there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or equipment that would not conform to current emissions standards (and related fuel efficiencies).

4.4 Operations

Project operations would require energy in the forms of electricity, natural gas, gasoline, and diesel. The GHG emissions analysis in the State-certified EIR disclosed the unmitigated total amounts of electricity and natural gas use and mobile vehicle use for Entrada South and Valencia Commerce Center. **Table 6** shows the estimated changes in energy consumption due to the Modified Project for Entrada South, while **Table 7** shows the estimated changes in energy consumption due to modeling changes for VCC.

Table 6. Approximate Unmitigated Energy Use Changes within Entrada South

Category		Residential	Commercial	Net Unmitigated Energy Use Modified Project Total
Number of Units [a]	(DU or SF)	-151	+280,000	-
Electricity [b]	(MWh/yr)	-649	+3,221	+2,572
Natural Gas [b]	(MMBTU/yr)	-240	+720	+480
Mobile Fuel [c]	(TGAL Diesel/yr)	-19	+136	+117
	(TGAL Gasoline/yr)	-92	+663	+571
	(Electricity MWh/yr)	-29	+207	+178

Notes:

[a] The State-certified EIR modeling included a mix of single family homes and condo/townhouses; however, this analysis conservatively assumes the change in dwelling units is all of the condo/townhouse subtype. This is conservative because single family homes as modeled have higher building energy and mobile emissions than condo/townhouses. Represents the change in energy use due to changes in how the land uses for ES are modeled compared to the modeling assumptions in the State-certified EIR.

[b] Electricity and natural gas use represent the per-unit rates for buildings constructed to 2019 Title 24 Standards, based on ConSol's Building Energy Analyses for Newhall Ranch, as incorporated into the State-certified EIR. These rates are multiplied by the number of units to estimate total energy use. This does not include the benefits of the solar photovoltaic electricity production required for the Zero Net Energy mitigation commitment.

[c] Mobile fuel use is estimated based on VMT data for the Modified Project and mobile fleet mix projections from EMFAC2017. This data does not include the benefits of the GHG mitigation measures (which would reduce VMT, reduce gasoline and diesel use, and increase electricity use). The percent of miles and fuel economy traveled by gasoline, diesel, and electric vehicles is from EMFAC2017 for calendar year 2030, Los Angeles South Coast, aggregated over all speeds and vehicle types. A negligible amount of natural gas is used (0.2% of VMT), which is not shown here. Fuel economy of electric vehicles is consistent with the State-certified AEA.

Abbreviations:

DU - dwelling unit
SF - square foot
MMBTU - million BTU
VMT - vehicle miles traveled
MWh - megawatt-hour
yr – year
TGAL – thousand gallons

Table 7. Approximate Unmitigated Energy Use Changes within Valencia Commerce Center

Category		Net Unmitigated Energy Use Changes Total
Electricity	(MWh/yr)	0
Natural Gas	(MMBTU/yr)	0
Mobile Fuel	(TGAL Diesel/yr)	0
	(TGAL Gasoline/yr)	0
	(Electricity MWh/yr)	0

Notes:

The Valencia Commerce Center Modified Project does not have any change in energy use.

Abbreviations:

MMBTU - million BTU

MWh - megawatt-hour

TGAL – thousand gallons

VMT - vehicle miles traveled

yr – year

The changes in energy consumption shown in **Tables 6** and **7** are not expected to cause the Modified Project to have any additional impact on the local or regional energy supplies or require additional capacity to be constructed; have a new significant impact on the peak and base period demands for electricity or other forms of energy; or have a substantial effect on statewide or regional energy resources compared to the Project approved in the State-certified EIR. **Tables 8** and **9** show the Modified Project's operational energy consumption by fuel type out of the total consumption in Los Angeles County and California. As shown in **Tables 8** and **9**, this consumption is a small portion of the total energy use and is; therefore, unlikely to have a new significant impact on peak or base period demands for energy.

Table 8. Entrada South Modified Project Energy Use in Context

Energy Resource	Unmitigated Modified Project's Contribution[a]	
	Los Angeles County	California
Electricity[b]	0.004%	0.001%
Natural Gas[c]	0.0002%	0.00004%
Gasoline[d]	0.02%	0.005%
Diesel[d]	0.02%	0.003%

Notes:

a. The Modified Project's contribution is calculated by dividing the energy use from Table 6 by the total consumption in Los Angeles County or California, respectively. This does not incorporate the co-benefits of the GHG mitigation measures that will reduce energy use.

b. Electricity data is obtained for 2019 from the California Energy Commission (CEC). Available at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx. Accessed: April, 2021. Statewide total energy use will likely increase by Project buildout, so these percentages would decrease if compared to 2030 projections rather than historical data.

c. Natural gas data is obtained for 2019 from the CEC. Available at: http://www.ecdms.energy.ca.gov/gasbycounty.aspx. Accessed: April, 2021. Statewide total energy use will likely increase by Project buildout, so these percentages would decrease if compared to 2030 projections rather than historical data.

d. Diesel and gasoline projections are based on EMFAC2017 projections for buildout year (2030) for Los Angeles County and California. Available at: https://www.arb.ca.gov/emfac/2017/. This is on-road fuel consumption only; these percentages would decrease if fuel use for off-road or stationary sources was included.

Table 9. Valencia Commerce Center Modified Project Energy Use in Context

Energy Resource	Unmitigated Modified Project's Contribution	
	Los Angeles County	California
Electricity	0%	0%
Natural Gas	0%	0%
Gasoline	0%	0%
Diesel	0%	0%

Notes:
The Valencia Commerce Center Modified Project does not have any change in energy use.

Moreover, the GHG mitigation measures designed to reduce operational energy usage will continue to apply to the Modified Project. As described previously, the State-certified EIR included a GHG mitigation framework to reduce construction and operational GHG emissions to zero. These mitigation measures incorporate renewable energy and energy efficiency measures into building design, equipment use, transportation and other project features. The Modified Project will continue to follow all applicable mitigation measures for the Modified Project. Additionally, the Modified Project will be constructed in compliance with California's Building Energy Efficiency Standards and Green Building Standards; and will implement transportation demand management strategies to reduce vehicle miles traveled and mobile fuel use. The Modified Project will continue to adhere to State, regional, and local standards designed to ensure that buildings employ strict energy efficiency techniques and deploy transportation improvement initiatives such as improved vehicle efficiency and zero emission technologies, as described previously.

Mitigation Measures 2-1 and 2-2 to achieve Zero Net Energy for all residential and non-residential buildings exceed the current (2019) Title 24, Part 6, Building Energy Efficiency Standards requirements and will continue to apply to the modified land use mix. At the time the State-certified EIR was certified, the applicable Title 24 Standards were from 2016. However, MM 2-1 and 2-2 already exceeded the 2019 Title 24 requirements. Therefore, the Modified Project would comply with and continue to exceed existing energy standards. The Zero Net Energy requirements will result in the production of renewable electricity from solar panels, which would assist the State in decreasing reliance on fossil fuels such as coal, natural gas and oil, and increasing reliance on renewable energy resources. In addition, since the certification of State-certified EIR in 2017, statewide regulatory requirements for renewable electricity production have increased due to the passage of SB 100. Any electricity the Project receives from the electricity grid will contain a higher proportion of renewables than previously analyzed.

The Modified Project would implement efficient transportation alternatives to reduce its transportation energy use requirements through compliance with Mitigation Measures 2-4 through 2-9 and 2-11, as described above. While the vehicle trip generation data may change with the Project modifications, these programs will continue to apply and ensure the Modified Project uses efficient transportation alternatives.

Overall, these programs and mitigation measures will ensure that the Modified Project will not create wasteful consumption of energy and will not obstruct any plans for renewable energy or energy efficiency.

4.5 Summary

The Modified Project will not have a substantial impact on the local or regional energy supplies or require additional capacity to be constructed. Furthermore, the Modified Project adequately incorporates energy efficiency measures into building design that exceed state mandates and require buildings to be designed to Zero Net Energy standards and achieve reductions in vehicle use while encouraging electric vehicle use.

The Modified Project continues to incorporate the mitigation measures required of the 2017 Approved Project that make the project a leading example of sustainable, master-planned development for energy usage and GHG emissions. As discussed above, CDFW found that the 2017 Approved Project will design and construct residential development, commercial development, private recreation centers, and public facilities to achieve Zero Net Energy standards, as defined by the California Energy Commission, which advances California policy goals of increasing the energy efficiency of homes and commercial buildings. CDFW also found that the 2017 Approved Project will install an electric vehicle charging station at every residence, as well as thousands more electric vehicle charging stations in commercial areas within the project site and off-site throughout Los Angeles County, provide subsidies for the purchase of zero emission vehicles to Project residents, and this suite of mitigation commitments is expected to make the 2017 Approved Project a model community for electric vehicle ownership and increase the electric vehicle adoption rate within the Santa Clarita area and Los Angeles County, advancing State, regional and local goals to reduce emissions through an increased use of electric vehicles.

Moreover, the 2017 Approved Project was highlighted in CARB's 2017 Climate Change Scoping Plan, the 2017 Approved Project serves as one of "[s]everal recent examples of sustainable land use development projects in California [that] have demonstrated that it is feasible to design projects that achieve zero net additional GHG emissions."

Overall, the Modified Project continues to achieve the goal of conserving energy by decreasing reliance on fossil fuels such as coal, natural gas and oil, and increasing reliance on renewable energy resources. Thus, based on the above analysis of the factors identified in CEQA Guidelines Appendix F, the Modified Project will not result in a new significant environmental effect related to the wasteful, inefficient, or unnecessary consumption of fuel or energy, and will not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

APPENDIX A

ES_Operational_2030

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	365.00	1000sqft	8.38	365,000.00	0
Elementary School	750.00	Student	9.40	62,702.53	0
City Park	5.00	Acre	5.00	217,800.00	0
Health Club	2.50	1000sqft	0.06	2,500.00	0
Condo/Townhouse	1,574.00	Dwelling Unit	98.38	1,574,000.00	4958
Regional Shopping Center	365.00	1000sqft	8.38	365,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2030
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	310.59	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity factor based on 60% RPS in 2030

Land Use - Site Sepcific Landuse

Off-road Equipment - Constructional Emissions will be calculated separately

Off-road Equipment - Constructional Emissions will be calculated separately

Off-road Equipment - Constructional Emissions will be calculated separately

Off-road Equipment - Constructional Emissions will be calculated separately

Off-road Equipment - Constructional Emissions will be calculated separately

Off-road Equipment - Constructional Emissions will be calculated separately

Trips and VMT - Constructional Emissions will be calculated separately

Grading -

Vehicle Trips - Site Specification- Traffic Data

Road Dust -

Consumer Products - updated 2017 VOC inventory from CARB and population estimates based on the CA DOF demographic projections were used to estimate a statewide VOC EF for 2017

Area Coating - Incorporates updates to SCAQMD Rule 1113

Energy Use - Site Specific- Energy Use

Water And Wastewater - Site Specific- Wate & Waste Water

Solid Waste - Site Specific_Solid Waste

Land Use Change - Site Specific_Vegetation

Sequestration - Site Specific_Number of New Trees

Waste Mitigation -

Operational Off-Road Equipment -

Table Name	Column Name	Default Value	New Value
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tblArchitecturalCoating	ConstArea_Residential_Interior	3,187,350.00	0.00

ES_Operational_2030 - Los Angeles-South Coast County, Annual

tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
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ES_Operational_2030 - Los Angeles-South Coast County, Annual

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tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.8330e-003	0.02
tblVehicleEF	HHD	1.1900e-004	1.0000e-006
tblVehicleEF	HHD	4.1180e-003	2.2820e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8520e-003	8.9040e-003
tblVehicleEF	HHD	5.5800e-003	0.02
tblVehicleEF	HHD	1.0900e-004	1.0000e-006
tblVehicleEF	HHD	1.0200e-004	2.0000e-006
tblVehicleEF	HHD	4.1930e-003	8.5000e-005
tblVehicleEF	HHD	0.37	0.45
tblVehicleEF	HHD	8.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	3.5600e-004	3.4000e-005

tblVehicleEF	HHD	0.06	2.0000e-006
tblVehicleEF	HHD	0.04	9.1940e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.6900e-004	1.0000e-006
tblVehicleEF	HHD	1.0200e-004	2.0000e-006
tblVehicleEF	HHD	4.1930e-003	8.5000e-005
tblVehicleEF	HHD	0.44	0.52
tblVehicleEF	HHD	8.1000e-005	2.0000e-006
tblVehicleEF	HHD	0.20	0.11
tblVehicleEF	HHD	3.5600e-004	3.4000e-005
tblVehicleEF	HHD	0.07	3.0000e-006
tblVehicleEF	HHD	0.36	0.03
tblVehicleEF	HHD	0.10	0.09
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	1.07	6.59
tblVehicleEF	HHD	1.11	0.53
tblVehicleEF	HHD	3.37	7.3690e-003
tblVehicleEF	HHD	4,430.40	983.17
tblVehicleEF	HHD	1,530.61	1,225.67
tblVehicleEF	HHD	11.20	0.07
tblVehicleEF	HHD	13.02	5.27
tblVehicleEF	HHD	1.79	2.42
tblVehicleEF	HHD	19.33	2.34
tblVehicleEF	HHD	3.6290e-003	2.0980e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.8330e-003	0.02

tblVehicleEF	HHD	1.1900e-004	1.0000e-006
tblVehicleEF	HHD	3.4720e-003	2.0080e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8520e-003	8.9040e-003
tblVehicleEF	HHD	5.5800e-003	0.02
tblVehicleEF	HHD	1.0900e-004	1.0000e-006
tblVehicleEF	HHD	1.5300e-004	3.0000e-006
tblVehicleEF	HHD	4.2930e-003	8.7000e-005
tblVehicleEF	HHD	0.35	0.47
tblVehicleEF	HHD	1.1100e-004	2.0000e-006
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	3.4300e-004	3.3000e-005
tblVehicleEF	HHD	0.06	2.0000e-006
tblVehicleEF	HHD	0.04	9.0820e-003
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.6700e-004	1.0000e-006
tblVehicleEF	HHD	1.5300e-004	3.0000e-006
tblVehicleEF	HHD	4.2930e-003	8.7000e-005
tblVehicleEF	HHD	0.42	0.55
tblVehicleEF	HHD	1.1100e-004	2.0000e-006
tblVehicleEF	HHD	0.20	0.11
tblVehicleEF	HHD	3.4300e-004	3.3000e-005
tblVehicleEF	HHD	0.07	3.0000e-006
tblVehicleEF	HHD	0.42	0.03
tblVehicleEF	HHD	0.10	0.09
tblVehicleEF	HHD	0.05	0.00
tblVehicleEF	HHD	2.03	6.81

tblVehicleEF	HHD	1.10	0.53
tblVehicleEF	HHD	3.58	7.8350e-003
tblVehicleEF	HHD	3,838.84	1,011.94
tblVehicleEF	HHD	1,530.61	1,225.67
tblVehicleEF	HHD	11.20	0.07
tblVehicleEF	HHD	12.05	5.89
tblVehicleEF	HHD	1.86	2.51
tblVehicleEF	HHD	19.34	2.34
tblVehicleEF	HHD	5.2380e-003	2.7810e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	5.8330e-003	0.02
tblVehicleEF	HHD	1.1900e-004	1.0000e-006
tblVehicleEF	HHD	5.0110e-003	2.6610e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8520e-003	8.9040e-003
tblVehicleEF	HHD	5.5800e-003	0.02
tblVehicleEF	HHD	1.0900e-004	1.0000e-006
tblVehicleEF	HHD	9.7000e-005	2.0000e-006
tblVehicleEF	HHD	4.3810e-003	9.1000e-005
tblVehicleEF	HHD	0.40	0.41
tblVehicleEF	HHD	7.7000e-005	2.0000e-006
tblVehicleEF	HHD	0.09	0.02
tblVehicleEF	HHD	3.9200e-004	3.7000e-005
tblVehicleEF	HHD	0.06	2.0000e-006
tblVehicleEF	HHD	0.04	9.3500e-003
tblVehicleEF	HHD	0.01	0.01

tblVehicleEF	HHD	1.7000e-004	1.0000e-006
tblVehicleEF	HHD	9.7000e-005	2.0000e-006
tblVehicleEF	HHD	4.3810e-003	9.1000e-005
tblVehicleEF	HHD	0.48	0.47
tblVehicleEF	HHD	7.7000e-005	2.0000e-006
tblVehicleEF	HHD	0.20	0.11
tblVehicleEF	HHD	3.9200e-004	3.7000e-005
tblVehicleEF	HHD	0.07	3.0000e-006
tblVehicleEF	LDA	2.7530e-003	1.3190e-003
tblVehicleEF	LDA	2.1570e-003	0.03
tblVehicleEF	LDA	0.41	0.48
tblVehicleEF	LDA	0.61	1.57
tblVehicleEF	LDA	206.71	216.64
tblVehicleEF	LDA	42.61	42.25
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	1.4730e-003	1.1510e-003
tblVehicleEF	LDA	1.7910e-003	1.2570e-003
tblVehicleEF	LDA	1.3550e-003	1.0590e-003
tblVehicleEF	LDA	1.6460e-003	1.1560e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	6.9100e-003	4.5630e-003
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	2.0690e-003	2.1430e-003

tblVehicleEF	LDA	4.3600e-004	4.1800e-004
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.01	6.6260e-003
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDA	2.9310e-003	1.4120e-003
tblVehicleEF	LDA	1.9230e-003	0.03
tblVehicleEF	LDA	0.45	0.52
tblVehicleEF	LDA	0.52	1.34
tblVehicleEF	LDA	216.34	226.07
tblVehicleEF	LDA	42.61	41.85
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.11
tblVehicleEF	LDA	1.4730e-003	1.1510e-003
tblVehicleEF	LDA	1.7910e-003	1.2570e-003
tblVehicleEF	LDA	1.3550e-003	1.0590e-003
tblVehicleEF	LDA	1.6460e-003	1.1560e-003
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	7.3500e-003	4.8380e-003
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.10
tblVehicleEF	LDA	2.1660e-003	2.2360e-003
tblVehicleEF	LDA	4.3400e-004	4.1400e-004

tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	7.0270e-003
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.11
tblVehicleEF	LDA	2.6960e-003	1.2900e-003
tblVehicleEF	LDA	2.2070e-003	0.03
tblVehicleEF	LDA	0.39	0.46
tblVehicleEF	LDA	0.63	1.62
tblVehicleEF	LDA	203.19	213.15
tblVehicleEF	LDA	42.61	42.34
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	1.4730e-003	1.1510e-003
tblVehicleEF	LDA	1.7910e-003	1.2570e-003
tblVehicleEF	LDA	1.3550e-003	1.0590e-003
tblVehicleEF	LDA	1.6460e-003	1.1560e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	6.7690e-003	4.4730e-003
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.12
tblVehicleEF	LDA	2.0340e-003	2.1080e-003
tblVehicleEF	LDA	4.3600e-004	4.1900e-004
tblVehicleEF	LDA	0.02	0.03

tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	9.8420e-003	6.4940e-003
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.13
tblVehicleEF	LDT1	6.9520e-003	2.8350e-003
tblVehicleEF	LDT1	5.6080e-003	0.04
tblVehicleEF	LDT1	0.84	0.71
tblVehicleEF	LDT1	1.27	1.69
tblVehicleEF	LDT1	271.30	260.95
tblVehicleEF	LDT1	55.18	51.16
tblVehicleEF	LDT1	0.07	0.04
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.1890e-003	1.4610e-003
tblVehicleEF	LDT1	2.3480e-003	1.5240e-003
tblVehicleEF	LDT1	2.0130e-003	1.3440e-003
tblVehicleEF	LDT1	2.1590e-003	1.4010e-003
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.15	0.11
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.11	0.05
tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	2.7220e-003	2.5820e-003
tblVehicleEF	LDT1	5.7300e-004	5.0600e-004
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.15	0.11

tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.11	0.05
tblVehicleEF	LDT1	0.08	0.17
tblVehicleEF	LDT1	7.3580e-003	3.0150e-003
tblVehicleEF	LDT1	4.9870e-003	0.03
tblVehicleEF	LDT1	0.92	0.78
tblVehicleEF	LDT1	1.08	1.45
tblVehicleEF	LDT1	283.27	270.68
tblVehicleEF	LDT1	55.18	50.71
tblVehicleEF	LDT1	0.06	0.04
tblVehicleEF	LDT1	0.06	0.14
tblVehicleEF	LDT1	2.1890e-003	1.4610e-003
tblVehicleEF	LDT1	2.3480e-003	1.5240e-003
tblVehicleEF	LDT1	2.0130e-003	1.3440e-003
tblVehicleEF	LDT1	2.1590e-003	1.4010e-003
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.09	0.08
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.10	0.05
tblVehicleEF	LDT1	0.07	0.14
tblVehicleEF	LDT1	2.8430e-003	2.6790e-003
tblVehicleEF	LDT1	5.7000e-004	5.0200e-004
tblVehicleEF	LDT1	0.11	0.10
tblVehicleEF	LDT1	0.16	0.11
tblVehicleEF	LDT1	0.09	0.08

tblVehicleEF	LDT1	0.03	0.02
tblVehicleEF	LDT1	0.10	0.05
tblVehicleEF	LDT1	0.07	0.16
tblVehicleEF	LDT1	6.8200e-003	2.7790e-003
tblVehicleEF	LDT1	5.7380e-003	0.04
tblVehicleEF	LDT1	0.81	0.69
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tblVehicleEF	LDT1	55.18	51.26
tblVehicleEF	LDT1	0.07	0.04
tblVehicleEF	LDT1	0.07	0.15
tblVehicleEF	LDT1	2.1890e-003	1.4610e-003
tblVehicleEF	LDT1	2.3480e-003	1.5240e-003
tblVehicleEF	LDT1	2.0130e-003	1.3440e-003
tblVehicleEF	LDT1	2.1590e-003	1.4010e-003
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.17	0.12
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	0.13	0.06
tblVehicleEF	LDT1	0.08	0.16
tblVehicleEF	LDT1	2.6780e-003	2.5470e-003
tblVehicleEF	LDT1	5.7400e-004	5.0700e-004
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.17	0.12
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.02	0.02

tblVehicleEF	LDT1	0.13	0.06
tblVehicleEF	LDT1	0.08	0.18
tblVehicleEF	LDT2	4.0800e-003	2.3500e-003
tblVehicleEF	LDT2	2.8850e-003	0.04
tblVehicleEF	LDT2	0.58	0.65
tblVehicleEF	LDT2	0.80	2.05
tblVehicleEF	LDT2	298.13	264.92
tblVehicleEF	LDT2	60.47	52.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.05	0.15
tblVehicleEF	LDT2	1.7210e-003	1.2920e-003
tblVehicleEF	LDT2	2.0290e-003	1.3260e-003
tblVehicleEF	LDT2	1.5830e-003	1.1900e-003
tblVehicleEF	LDT2	1.8660e-003	1.2190e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.01	9.0370e-003
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.9850e-003	2.6210e-003
tblVehicleEF	LDT2	6.1800e-004	5.1600e-004
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.03	0.06
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.05	0.04

tblVehicleEF	LDT2	0.04	0.18
tblVehicleEF	LDT2	4.3330e-003	2.5070e-003
tblVehicleEF	LDT2	2.5890e-003	0.03
tblVehicleEF	LDT2	0.64	0.71
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tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.04	0.14
tblVehicleEF	LDT2	1.7210e-003	1.2920e-003
tblVehicleEF	LDT2	2.0290e-003	1.3260e-003
tblVehicleEF	LDT2	1.5830e-003	1.1900e-003
tblVehicleEF	LDT2	1.8660e-003	1.2190e-003
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.01	9.5610e-003
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.03	0.15
tblVehicleEF	LDT2	3.1190e-003	2.7090e-003
tblVehicleEF	LDT2	6.1600e-004	5.1100e-004
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.07	0.08
tblVehicleEF	LDT2	0.05	0.08
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.04	0.16

tblVehicleEF	LDT2	3.9970e-003	2.3020e-003
tblVehicleEF	LDT2	2.9490e-003	0.04
tblVehicleEF	LDT2	0.56	0.62
tblVehicleEF	LDT2	0.82	2.12
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tblVehicleEF	LDT2	60.47	52.25
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.05	0.16
tblVehicleEF	LDT2	1.7210e-003	1.2920e-003
tblVehicleEF	LDT2	2.0290e-003	1.3260e-003
tblVehicleEF	LDT2	1.5830e-003	1.1900e-003
tblVehicleEF	LDT2	1.8660e-003	1.2190e-003
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	9.9350e-003	8.8640e-003
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.04	0.17
tblVehicleEF	LDT2	2.9360e-003	2.5880e-003
tblVehicleEF	LDT2	6.1800e-004	5.1700e-004
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.03	0.05
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	0.06	0.05
tblVehicleEF	LDT2	0.04	0.19
tblVehicleEF	LHD1	3.6730e-003	4.0860e-003

tblVehicleEF	LHD1	4.1110e-003	2.4080e-003
tblVehicleEF	LHD1	9.2280e-003	8.3620e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.34	0.26
tblVehicleEF	LHD1	1.52	0.84
tblVehicleEF	LHD1	8.95	8.20
tblVehicleEF	LHD1	552.26	569.54
tblVehicleEF	LHD1	25.23	9.69
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.39	0.22
tblVehicleEF	LHD1	0.58	0.21
tblVehicleEF	LHD1	8.0100e-004	9.5600e-004
tblVehicleEF	LHD1	0.01	9.9890e-003
tblVehicleEF	LHD1	6.7350e-003	4.5990e-003
tblVehicleEF	LHD1	6.1300e-004	2.0100e-004
tblVehicleEF	LHD1	7.6600e-004	9.1500e-004
tblVehicleEF	LHD1	2.6310e-003	2.4970e-003
tblVehicleEF	LHD1	6.4250e-003	4.3760e-003
tblVehicleEF	LHD1	5.6300e-004	1.8500e-004
tblVehicleEF	LHD1	1.8240e-003	1.4360e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.2120e-003	9.7400e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.22	0.15
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	8.9000e-005	7.9000e-005

tblVehicleEF	LHD1	5.3890e-003	5.5450e-003
tblVehicleEF	LHD1	2.8000e-004	9.6000e-005
tblVehicleEF	LHD1	1.8240e-003	1.4360e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.2120e-003	9.7400e-004
tblVehicleEF	LHD1	0.05	0.03
tblVehicleEF	LHD1	0.22	0.15
tblVehicleEF	LHD1	0.14	0.04
tblVehicleEF	LHD1	3.6730e-003	4.0940e-003
tblVehicleEF	LHD1	4.1640e-003	2.4350e-003
tblVehicleEF	LHD1	8.8850e-003	8.0800e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.34	0.26
tblVehicleEF	LHD1	1.45	0.80
tblVehicleEF	LHD1	8.95	8.20
tblVehicleEF	LHD1	552.26	569.55
tblVehicleEF	LHD1	25.23	9.63
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.36	0.21
tblVehicleEF	LHD1	0.56	0.20
tblVehicleEF	LHD1	8.0100e-004	9.5600e-004
tblVehicleEF	LHD1	0.01	9.9890e-003
tblVehicleEF	LHD1	6.7350e-003	4.5990e-003
tblVehicleEF	LHD1	6.1300e-004	2.0100e-004
tblVehicleEF	LHD1	7.6600e-004	9.1500e-004
tblVehicleEF	LHD1	2.6310e-003	2.4970e-003

tblVehicleEF	LHD1	6.4250e-003	4.3760e-003
tblVehicleEF	LHD1	5.6300e-004	1.8500e-004
tblVehicleEF	LHD1	2.7190e-003	2.1120e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.6740e-003	1.3280e-003
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.22	0.14
tblVehicleEF	LHD1	0.12	0.04
tblVehicleEF	LHD1	8.9000e-005	7.9000e-005
tblVehicleEF	LHD1	5.3890e-003	5.5460e-003
tblVehicleEF	LHD1	2.7900e-004	9.5000e-005
tblVehicleEF	LHD1	2.7190e-003	2.1120e-003
tblVehicleEF	LHD1	0.07	0.05
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.6740e-003	1.3280e-003
tblVehicleEF	LHD1	0.05	0.04
tblVehicleEF	LHD1	0.22	0.14
tblVehicleEF	LHD1	0.13	0.04
tblVehicleEF	LHD1	3.6730e-003	4.0840e-003
tblVehicleEF	LHD1	4.0970e-003	2.4000e-003
tblVehicleEF	LHD1	9.2960e-003	8.4240e-003
tblVehicleEF	LHD1	0.13	0.17
tblVehicleEF	LHD1	0.34	0.26
tblVehicleEF	LHD1	1.53	0.84
tblVehicleEF	LHD1	8.95	8.20
tblVehicleEF	LHD1	552.26	569.54

tblVehicleEF	LHD1	25.23	9.70
tblVehicleEF	LHD1	0.06	0.04
tblVehicleEF	LHD1	0.38	0.21
tblVehicleEF	LHD1	0.59	0.21
tblVehicleEF	LHD1	8.0100e-004	9.5600e-004
tblVehicleEF	LHD1	0.01	9.9890e-003
tblVehicleEF	LHD1	6.7350e-003	4.5990e-003
tblVehicleEF	LHD1	6.1300e-004	2.0100e-004
tblVehicleEF	LHD1	7.6600e-004	9.1500e-004
tblVehicleEF	LHD1	2.6310e-003	2.4970e-003
tblVehicleEF	LHD1	6.4250e-003	4.3760e-003
tblVehicleEF	LHD1	5.6300e-004	1.8500e-004
tblVehicleEF	LHD1	1.8420e-003	1.4480e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.01	0.02
tblVehicleEF	LHD1	1.1740e-003	9.4600e-004
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	0.24	0.16
tblVehicleEF	LHD1	0.13	0.04
tblVehicleEF	LHD1	8.9000e-005	7.9000e-005
tblVehicleEF	LHD1	5.3890e-003	5.5450e-003
tblVehicleEF	LHD1	2.8000e-004	9.6000e-005
tblVehicleEF	LHD1	1.8420e-003	1.4480e-003
tblVehicleEF	LHD1	0.08	0.06
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.1740e-003	9.4600e-004
tblVehicleEF	LHD1	0.05	0.03

tblVehicleEF	LHD1	0.24	0.16
tblVehicleEF	LHD1	0.14	0.04
tblVehicleEF	LHD2	2.6590e-003	2.7710e-003
tblVehicleEF	LHD2	2.1660e-003	2.1950e-003
tblVehicleEF	LHD2	3.4320e-003	5.4400e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.19	0.22
tblVehicleEF	LHD2	0.90	0.51
tblVehicleEF	LHD2	13.48	12.65
tblVehicleEF	LHD2	582.11	572.46
tblVehicleEF	LHD2	22.79	7.05
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.16	0.29
tblVehicleEF	LHD2	0.28	0.14
tblVehicleEF	LHD2	1.0110e-003	1.4290e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.4750e-003	9.3110e-003
tblVehicleEF	LHD2	3.8100e-004	1.1400e-004
tblVehicleEF	LHD2	9.6700e-004	1.3680e-003
tblVehicleEF	LHD2	2.7000e-003	2.6930e-003
tblVehicleEF	LHD2	6.1820e-003	8.8940e-003
tblVehicleEF	LHD2	3.5000e-004	1.0400e-004
tblVehicleEF	LHD2	6.1700e-004	8.1200e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.6000e-004	5.8900e-004
tblVehicleEF	LHD2	0.03	0.04

tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	LHD2	1.3100e-004	1.2100e-004
tblVehicleEF	LHD2	5.6580e-003	5.5250e-003
tblVehicleEF	LHD2	2.4300e-004	7.0000e-005
tblVehicleEF	LHD2	6.1700e-004	8.1200e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.6000e-004	5.8900e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	LHD2	2.6590e-003	2.7770e-003
tblVehicleEF	LHD2	2.1810e-003	2.2080e-003
tblVehicleEF	LHD2	3.3530e-003	5.2580e-003
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tblVehicleEF	LHD2	0.19	0.23
tblVehicleEF	LHD2	0.86	0.49
tblVehicleEF	LHD2	13.48	12.65
tblVehicleEF	LHD2	582.11	572.46
tblVehicleEF	LHD2	22.79	7.01
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.15	0.28
tblVehicleEF	LHD2	0.27	0.13
tblVehicleEF	LHD2	1.0110e-003	1.4290e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.4750e-003	9.3110e-003

tblVehicleEF	LHD2	3.8100e-004	1.1400e-004
tblVehicleEF	LHD2	9.6700e-004	1.3680e-003
tblVehicleEF	LHD2	2.7000e-003	2.6930e-003
tblVehicleEF	LHD2	6.1820e-003	8.8940e-003
tblVehicleEF	LHD2	3.5000e-004	1.0400e-004
tblVehicleEF	LHD2	9.2000e-004	1.1960e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.3200e-004	8.0200e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	0.05	0.02
tblVehicleEF	LHD2	1.3100e-004	1.2100e-004
tblVehicleEF	LHD2	5.6590e-003	5.5250e-003
tblVehicleEF	LHD2	2.4200e-004	6.9000e-005
tblVehicleEF	LHD2	9.2000e-004	1.1960e-003
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.3200e-004	8.0200e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.04	0.06
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	LHD2	2.6590e-003	2.7700e-003
tblVehicleEF	LHD2	2.1620e-003	2.1910e-003
tblVehicleEF	LHD2	3.4490e-003	5.4800e-003
tblVehicleEF	LHD2	0.12	0.14
tblVehicleEF	LHD2	0.19	0.22

tblVehicleEF	LHD2	0.91	0.52
tblVehicleEF	LHD2	13.48	12.65
tblVehicleEF	LHD2	582.11	572.46
tblVehicleEF	LHD2	22.79	7.05
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.16	0.29
tblVehicleEF	LHD2	0.28	0.14
tblVehicleEF	LHD2	1.0110e-003	1.4290e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	6.4750e-003	9.3110e-003
tblVehicleEF	LHD2	3.8100e-004	1.1400e-004
tblVehicleEF	LHD2	9.6700e-004	1.3680e-003
tblVehicleEF	LHD2	2.7000e-003	2.6930e-003
tblVehicleEF	LHD2	6.1820e-003	8.8940e-003
tblVehicleEF	LHD2	3.5000e-004	1.0400e-004
tblVehicleEF	LHD2	5.9800e-004	7.9300e-004
tblVehicleEF	LHD2	0.02	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4100e-004	5.6400e-004
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.05	0.07
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	LHD2	1.3100e-004	1.2100e-004
tblVehicleEF	LHD2	5.6580e-003	5.5250e-003
tblVehicleEF	LHD2	2.4300e-004	7.0000e-005
tblVehicleEF	LHD2	5.9800e-004	7.9300e-004
tblVehicleEF	LHD2	0.02	0.03

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	4.4100e-004	5.6400e-004
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.05	0.07
tblVehicleEF	LHD2	0.05	0.03
tblVehicleEF	MCY	0.56	0.38
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	17.99	18.05
tblVehicleEF	MCY	9.80	8.68
tblVehicleEF	MCY	192.02	224.73
tblVehicleEF	MCY	42.23	57.60
tblVehicleEF	MCY	1.13	1.13
tblVehicleEF	MCY	0.31	0.26
tblVehicleEF	MCY	2.6870e-003	2.6900e-003
tblVehicleEF	MCY	3.3470e-003	2.9420e-003
tblVehicleEF	MCY	2.5060e-003	2.5090e-003
tblVehicleEF	MCY	3.1280e-003	2.7500e-003
tblVehicleEF	MCY	1.05	1.07
tblVehicleEF	MCY	0.58	0.59
tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	2.56	2.57
tblVehicleEF	MCY	0.47	0.46
tblVehicleEF	MCY	1.98	1.75
tblVehicleEF	MCY	2.2930e-003	2.2240e-003
tblVehicleEF	MCY	6.4000e-004	5.7000e-004
tblVehicleEF	MCY	1.05	1.07
tblVehicleEF	MCY	0.58	0.59

tblVehicleEF	MCY	0.62	0.63
tblVehicleEF	MCY	3.22	3.23
tblVehicleEF	MCY	0.47	0.46
tblVehicleEF	MCY	2.15	1.91
tblVehicleEF	MCY	0.55	0.37
tblVehicleEF	MCY	0.13	0.20
tblVehicleEF	MCY	17.39	17.42
tblVehicleEF	MCY	8.90	7.86
tblVehicleEF	MCY	192.02	223.55
tblVehicleEF	MCY	42.23	55.68
tblVehicleEF	MCY	0.99	0.99
tblVehicleEF	MCY	0.29	0.25
tblVehicleEF	MCY	2.6870e-003	2.6900e-003
tblVehicleEF	MCY	3.3470e-003	2.9420e-003
tblVehicleEF	MCY	2.5060e-003	2.5090e-003
tblVehicleEF	MCY	3.1280e-003	2.7500e-003
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tblVehicleEF	MCY	1.02	1.01
tblVehicleEF	MCY	2.51	2.52
tblVehicleEF	MCY	0.44	0.42
tblVehicleEF	MCY	1.77	1.57
tblVehicleEF	MCY	2.2820e-003	2.2120e-003
tblVehicleEF	MCY	6.2000e-004	5.5100e-004
tblVehicleEF	MCY	1.70	1.69
tblVehicleEF	MCY	0.64	0.65
tblVehicleEF	MCY	1.02	1.01

tblVehicleEF	MCY	3.16	3.17
tblVehicleEF	MCY	0.44	0.42
tblVehicleEF	MCY	1.93	1.71
tblVehicleEF	MCY	0.56	0.38
tblVehicleEF	MCY	0.15	0.23
tblVehicleEF	MCY	18.08	18.17
tblVehicleEF	MCY	9.96	8.84
tblVehicleEF	MCY	192.02	224.96
tblVehicleEF	MCY	42.23	57.99
tblVehicleEF	MCY	1.10	1.10
tblVehicleEF	MCY	0.31	0.27
tblVehicleEF	MCY	2.6870e-003	2.6900e-003
tblVehicleEF	MCY	3.3470e-003	2.9420e-003
tblVehicleEF	MCY	2.5060e-003	2.5090e-003
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tblVehicleEF	MCY	1.14	1.16
tblVehicleEF	MCY	0.73	0.75
tblVehicleEF	MCY	0.59	0.60
tblVehicleEF	MCY	2.57	2.58
tblVehicleEF	MCY	0.55	0.54
tblVehicleEF	MCY	2.02	1.79
tblVehicleEF	MCY	2.2950e-003	2.2260e-003
tblVehicleEF	MCY	6.4400e-004	5.7400e-004
tblVehicleEF	MCY	1.14	1.16
tblVehicleEF	MCY	0.73	0.75
tblVehicleEF	MCY	0.59	0.60
tblVehicleEF	MCY	3.23	3.24

tblVehicleEF	MCY	0.55	0.54
tblVehicleEF	MCY	2.20	1.95
tblVehicleEF	MDV	6.3390e-003	2.5650e-003
tblVehicleEF	MDV	5.5190e-003	0.04
tblVehicleEF	MDV	0.75	0.66
tblVehicleEF	MDV	1.21	2.10
tblVehicleEF	MDV	401.54	324.09
tblVehicleEF	MDV	80.14	62.35
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.09	0.17
tblVehicleEF	MDV	1.7850e-003	1.2940e-003
tblVehicleEF	MDV	2.0430e-003	1.3100e-003
tblVehicleEF	MDV	1.6430e-003	1.1920e-003
tblVehicleEF	MDV	1.8790e-003	1.2040e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.07	0.18
tblVehicleEF	MDV	4.0160e-003	3.2030e-003
tblVehicleEF	MDV	8.2100e-004	6.1700e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.11	0.09
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.04

tblVehicleEF	MDV	0.08	0.20
tblVehicleEF	MDV	6.7300e-003	2.7360e-003
tblVehicleEF	MDV	4.9320e-003	0.04
tblVehicleEF	MDV	0.83	0.72
tblVehicleEF	MDV	1.04	1.79
tblVehicleEF	MDV	419.01	333.08
tblVehicleEF	MDV	80.14	61.80
tblVehicleEF	MDV	0.06	0.04
tblVehicleEF	MDV	0.08	0.15
tblVehicleEF	MDV	1.7850e-003	1.2940e-003
tblVehicleEF	MDV	2.0430e-003	1.3100e-003
tblVehicleEF	MDV	1.6430e-003	1.1920e-003
tblVehicleEF	MDV	1.8790e-003	1.2040e-003
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.07	0.16
tblVehicleEF	MDV	4.1920e-003	3.2920e-003
tblVehicleEF	MDV	8.1900e-004	6.1200e-004
tblVehicleEF	MDV	0.08	0.10
tblVehicleEF	MDV	0.11	0.10
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.07	0.18

tblVehicleEF	MDV	6.2120e-003	2.5110e-003
tblVehicleEF	MDV	5.6440e-003	0.04
tblVehicleEF	MDV	0.73	0.64
tblVehicleEF	MDV	1.24	2.17
tblVehicleEF	MDV	395.12	320.77
tblVehicleEF	MDV	80.14	62.48
tblVehicleEF	MDV	0.07	0.04
tblVehicleEF	MDV	0.09	0.17
tblVehicleEF	MDV	1.7850e-003	1.2940e-003
tblVehicleEF	MDV	2.0430e-003	1.3100e-003
tblVehicleEF	MDV	1.6430e-003	1.1920e-003
tblVehicleEF	MDV	1.8790e-003	1.2040e-003
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.02	9.8820e-003
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.08	0.19
tblVehicleEF	MDV	3.9520e-003	3.1700e-003
tblVehicleEF	MDV	8.2200e-004	6.1800e-004
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.12	0.10
tblVehicleEF	MDV	0.05	0.07
tblVehicleEF	MDV	0.02	0.01
tblVehicleEF	MDV	0.08	0.05
tblVehicleEF	MDV	0.08	0.20
tblVehicleEF	MH	6.1320e-003	3.9240e-003

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.35	0.25
tblVehicleEF	MH	3.47	1.59
tblVehicleEF	MH	1,105.40	1,302.02
tblVehicleEF	MH	57.42	15.78
tblVehicleEF	MH	0.67	0.84
tblVehicleEF	MH	0.58	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1680e-003	0.01
tblVehicleEF	MH	8.3700e-004	2.1200e-004
tblVehicleEF	MH	3.2140e-003	3.2830e-003
tblVehicleEF	MH	8.7360e-003	0.01
tblVehicleEF	MH	7.7000e-004	1.9500e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.23	0.18
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	8.3890e-003	4.5000e-003
tblVehicleEF	MH	0.20	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3400e-004	1.5600e-004
tblVehicleEF	MH	0.46	0.35
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.23	0.18
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	8.3890e-003	4.5000e-003
tblVehicleEF	MH	0.22	0.08

tblVehicleEF	MH	6.2580e-003	3.9860e-003
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	0.36	0.25
tblVehicleEF	MH	3.28	1.50
tblVehicleEF	MH	1,105.40	1,302.03
tblVehicleEF	MH	57.42	15.64
tblVehicleEF	MH	0.62	0.79
tblVehicleEF	MH	0.55	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1680e-003	0.01
tblVehicleEF	MH	8.3700e-004	2.1200e-004
tblVehicleEF	MH	3.2140e-003	3.2830e-003
tblVehicleEF	MH	8.7360e-003	0.01
tblVehicleEF	MH	7.7000e-004	1.9500e-004
tblVehicleEF	MH	0.68	0.50
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.32	0.25
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	8.1960e-003	4.3850e-003
tblVehicleEF	MH	0.20	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3100e-004	1.5500e-004
tblVehicleEF	MH	0.68	0.50
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	0.32	0.25
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	8.1960e-003	4.3850e-003

tblVehicleEF	MH	0.21	0.08
tblVehicleEF	MH	6.0980e-003	3.9060e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.35	0.25
tblVehicleEF	MH	3.51	1.61
tblVehicleEF	MH	1,105.40	1,302.02
tblVehicleEF	MH	57.42	15.81
tblVehicleEF	MH	0.66	0.83
tblVehicleEF	MH	0.58	0.24
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	9.1680e-003	0.01
tblVehicleEF	MH	8.3700e-004	2.1200e-004
tblVehicleEF	MH	3.2140e-003	3.2830e-003
tblVehicleEF	MH	8.7360e-003	0.01
tblVehicleEF	MH	7.7000e-004	1.9500e-004
tblVehicleEF	MH	0.48	0.36
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.22	0.17
tblVehicleEF	MH	0.03	0.03
tblVehicleEF	MH	8.8940e-003	4.7880e-003
tblVehicleEF	MH	0.21	0.07
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.3500e-004	1.5600e-004
tblVehicleEF	MH	0.48	0.36
tblVehicleEF	MH	0.04	0.03
tblVehicleEF	MH	0.22	0.17
tblVehicleEF	MH	0.03	0.03

tblVehicleEF	MH	8.8940e-003	4.7880e-003
tblVehicleEF	MH	0.23	0.08
tblVehicleEF	MHD	0.02	4.0120e-003
tblVehicleEF	MHD	2.2720e-003	9.2800e-004
tblVehicleEF	MHD	0.03	9.0210e-003
tblVehicleEF	MHD	0.34	0.38
tblVehicleEF	MHD	0.21	0.13
tblVehicleEF	MHD	3.49	0.91
tblVehicleEF	MHD	137.74	57.82
tblVehicleEF	MHD	1,122.07	914.01
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tblVehicleEF	MHD	0.69	1.08
tblVehicleEF	MHD	10.50	1.66
tblVehicleEF	MHD	4.8000e-005	1.2800e-004
tblVehicleEF	MHD	2.8330e-003	6.3460e-003
tblVehicleEF	MHD	7.3800e-004	1.1100e-004
tblVehicleEF	MHD	4.6000e-005	1.2300e-004
tblVehicleEF	MHD	2.7060e-003	6.0650e-003
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tblVehicleEF	MHD	7.3400e-004	3.8600e-004
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	5.5300e-004	2.8800e-004
tblVehicleEF	MHD	0.03	9.1940e-003
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.22	0.04

tblVehicleEF	MHD	1.3260e-003	5.4900e-004
tblVehicleEF	MHD	0.01	8.7280e-003
tblVehicleEF	MHD	6.3100e-004	9.2000e-005
tblVehicleEF	MHD	7.3400e-004	3.8600e-004
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tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	5.5300e-004	2.8800e-004
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tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.24	0.05
tblVehicleEF	MHD	0.01	3.8140e-003
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tblVehicleEF	MHD	0.03	8.7070e-003
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tblVehicleEF	MHD	0.21	0.13
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tblVehicleEF	MHD	1,122.07	914.01
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tblVehicleEF	MHD	0.65	1.02
tblVehicleEF	MHD	10.48	1.65
tblVehicleEF	MHD	4.0000e-005	1.1100e-004
tblVehicleEF	MHD	2.8330e-003	6.3460e-003
tblVehicleEF	MHD	7.3800e-004	1.1100e-004
tblVehicleEF	MHD	3.9000e-005	1.0600e-004
tblVehicleEF	MHD	2.7060e-003	6.0650e-003

tblVehicleEF	MHD	6.7800e-004	1.0200e-004
tblVehicleEF	MHD	1.0930e-003	5.7100e-004
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	7.6000e-004	3.9400e-004
tblVehicleEF	MHD	0.03	9.2510e-003
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.21	0.04
tblVehicleEF	MHD	1.4020e-003	5.4600e-004
tblVehicleEF	MHD	0.01	8.7280e-003
tblVehicleEF	MHD	6.2800e-004	9.1000e-005
tblVehicleEF	MHD	1.0930e-003	5.7100e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	7.6000e-004	3.9400e-004
tblVehicleEF	MHD	0.04	0.01
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	0.23	0.05
tblVehicleEF	MHD	0.02	4.3000e-003
tblVehicleEF	MHD	2.2670e-003	9.2200e-004
tblVehicleEF	MHD	0.03	9.0730e-003
tblVehicleEF	MHD	0.46	0.46
tblVehicleEF	MHD	0.21	0.13
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tblVehicleEF	MHD	126.47	58.21
tblVehicleEF	MHD	1,122.07	914.00
tblVehicleEF	MHD	56.97	9.27

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tblVehicleEF	MHD	0.68	1.06
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tblVehicleEF	MHD	5.8000e-005	1.5200e-004
tblVehicleEF	MHD	2.8330e-003	6.3460e-003
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tblVehicleEF	MHD	2.7060e-003	6.0650e-003
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tblVehicleEF	MHD	7.0700e-004	3.7400e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	5.2900e-004	2.7600e-004
tblVehicleEF	MHD	0.03	9.1770e-003
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.22	0.04
tblVehicleEF	MHD	1.2200e-003	5.5200e-004
tblVehicleEF	MHD	0.01	8.7280e-003
tblVehicleEF	MHD	6.3100e-004	9.2000e-005
tblVehicleEF	MHD	7.0700e-004	3.7400e-004
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	5.2900e-004	2.7600e-004
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.25	0.05
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tblVehicleEF	OBUS	3.6380e-003	2.3330e-003
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tblVehicleEF	OBUS	0.25	0.69
tblVehicleEF	OBUS	0.29	0.29
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tblVehicleEF	OBUS	0.65	1.15
tblVehicleEF	OBUS	2.59	0.94
tblVehicleEF	OBUS	2.4000e-005	1.4500e-004
tblVehicleEF	OBUS	2.8310e-003	7.6670e-003
tblVehicleEF	OBUS	9.4400e-004	1.9600e-004
tblVehicleEF	OBUS	2.3000e-005	1.3900e-004
tblVehicleEF	OBUS	2.6910e-003	7.3200e-003
tblVehicleEF	OBUS	8.6800e-004	1.8000e-004
tblVehicleEF	OBUS	1.3660e-003	1.6390e-003
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tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	7.7700e-004	8.9700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	0.26	0.09
tblVehicleEF	OBUS	1.1200e-003	9.3000e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2700e-004	1.5700e-004

tblVehicleEF	OBUS	1.3660e-003	1.6390e-003
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tblVehicleEF	OBUS	0.05	0.07
tblVehicleEF	OBUS	7.7700e-004	8.9700e-004
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	0.29	0.10
tblVehicleEF	OBUS	0.01	8.1510e-003
tblVehicleEF	OBUS	3.6880e-003	2.3800e-003
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tblVehicleEF	OBUS	0.29	0.29
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tblVehicleEF	OBUS	1,229.43	1,178.80
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tblVehicleEF	OBUS	0.61	1.09
tblVehicleEF	OBUS	2.56	0.93
tblVehicleEF	OBUS	2.0000e-005	1.2900e-004
tblVehicleEF	OBUS	2.8310e-003	7.6670e-003
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tblVehicleEF	OBUS	1.9960e-003	2.3600e-003
tblVehicleEF	OBUS	0.02	0.02

tblVehicleEF	OBUS	0.03	0.06
tblVehicleEF	OBUS	1.0770e-003	1.2280e-003
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.2300e-004	1.5600e-004
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tblVehicleEF	OBUS	1.0770e-003	1.2280e-003
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.04	0.07
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tblVehicleEF	OBUS	2.60	0.94

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tblVehicleEF	SBUS	2.6070e-003	2.5930e-003
tblVehicleEF	SBUS	8.4920e-003	0.01
tblVehicleEF	SBUS	1.0410e-003	8.7000e-005
tblVehicleEF	SBUS	4.1080e-003	1.4190e-003
tblVehicleEF	SBUS	0.03	0.01
tblVehicleEF	SBUS	1.09	0.47
tblVehicleEF	SBUS	2.4430e-003	8.5300e-004
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tblVehicleEF	SBUS	9.8500e-003	9.3030e-003
tblVehicleEF	SBUS	7.5500e-004	7.2000e-005
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tblVehicleEF	SBUS	2.4430e-003	8.5300e-004
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tblVehicleEF	SBUS	0.02	0.02
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tblVehicleEF	SBUS	8.8960e-003	0.01
tblVehicleEF	SBUS	1.1320e-003	9.5000e-005
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tblVehicleEF	SBUS	1.0410e-003	8.7000e-005
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tblVehicleEF	SBUS	8.8960e-003	0.01
tblVehicleEF	SBUS	1.1320e-003	9.5000e-005
tblVehicleEF	SBUS	2.4970e-003	1.7180e-003
tblVehicleEF	SBUS	2.6070e-003	2.5930e-003
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tblVehicleEF	SBUS	1.0410e-003	8.7000e-005
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tblVehicleEF	SBUS	0.37	0.05
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tblVehicleEF	SBUS	7.5800e-004	7.2000e-005
tblVehicleEF	SBUS	3.9500e-003	1.3580e-003
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tblVehicleEF	SBUS	1.59	0.68
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tblVehicleEF	UBUS	13.27	0.08
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tblVehicleEF	UBUS	0.05	3.2560e-003
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tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9690e-003
tblVehicleEF	UBUS	0.04	3.1090e-003
tblVehicleEF	UBUS	1.2560e-003	8.0000e-005
tblVehicleEF	UBUS	3.5970e-003	4.2400e-004
tblVehicleEF	UBUS	0.05	5.2380e-003
tblVehicleEF	UBUS	2.5590e-003	3.2800e-004
tblVehicleEF	UBUS	0.30	0.09
tblVehicleEF	UBUS	0.02	1.1490e-003
tblVehicleEF	UBUS	0.70	0.05
tblVehicleEF	UBUS	8.5410e-003	1.2030e-003
tblVehicleEF	UBUS	1.4050e-003	7.5000e-005
tblVehicleEF	UBUS	3.5970e-003	4.2400e-004
tblVehicleEF	UBUS	0.05	5.2380e-003
tblVehicleEF	UBUS	2.5590e-003	3.2800e-004
tblVehicleEF	UBUS	1.94	5.99

tblVehicleEF	UBUS	0.02	1.1490e-003
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tblVehicleEF	UBUS	1.59	5.87
tblVehicleEF	UBUS	0.05	9.9760e-003
tblVehicleEF	UBUS	6.77	45.62
tblVehicleEF	UBUS	7.09	0.63
tblVehicleEF	UBUS	1,802.13	1,975.87
tblVehicleEF	UBUS	125.75	7.41
tblVehicleEF	UBUS	3.70	0.47
tblVehicleEF	UBUS	13.21	0.08
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.05	3.2560e-003
tblVehicleEF	UBUS	1.3660e-003	8.7000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9690e-003
tblVehicleEF	UBUS	0.04	3.1090e-003
tblVehicleEF	UBUS	1.2560e-003	8.0000e-005
tblVehicleEF	UBUS	5.1920e-003	6.2000e-004
tblVehicleEF	UBUS	0.06	5.4280e-003
tblVehicleEF	UBUS	3.5450e-003	4.5900e-004
tblVehicleEF	UBUS	0.30	0.09
tblVehicleEF	UBUS	0.02	1.0500e-003
tblVehicleEF	UBUS	0.65	0.04
tblVehicleEF	UBUS	8.5410e-003	1.2030e-003
tblVehicleEF	UBUS	1.3880e-003	7.3000e-005
tblVehicleEF	UBUS	5.1920e-003	6.2000e-004

tblVehicleEF	UBUS	0.06	5.4280e-003
tblVehicleEF	UBUS	3.5450e-003	4.5900e-004
tblVehicleEF	UBUS	1.94	5.99
tblVehicleEF	UBUS	0.02	1.0500e-003
tblVehicleEF	UBUS	0.71	0.05
tblVehicleEF	UBUS	1.59	5.87
tblVehicleEF	UBUS	0.05	0.01
tblVehicleEF	UBUS	6.75	45.61
tblVehicleEF	UBUS	8.27	0.73
tblVehicleEF	UBUS	1,802.13	1,975.87
tblVehicleEF	UBUS	125.75	7.59
tblVehicleEF	UBUS	3.86	0.47
tblVehicleEF	UBUS	13.28	0.08
tblVehicleEF	UBUS	0.54	0.07
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.05	3.2560e-003
tblVehicleEF	UBUS	1.3660e-003	8.7000e-005
tblVehicleEF	UBUS	0.23	0.03
tblVehicleEF	UBUS	3.0000e-003	7.9690e-003
tblVehicleEF	UBUS	0.04	3.1090e-003
tblVehicleEF	UBUS	1.2560e-003	8.0000e-005
tblVehicleEF	UBUS	3.7100e-003	4.2400e-004
tblVehicleEF	UBUS	0.06	5.6380e-003
tblVehicleEF	UBUS	2.4860e-003	3.1500e-004
tblVehicleEF	UBUS	0.30	0.09
tblVehicleEF	UBUS	0.02	1.3810e-003
tblVehicleEF	UBUS	0.71	0.05

ES_Operational_2030 - Los Angeles-South Coast County, Annual

tblVehicleEF	UBUS	8.5410e-003	1.2030e-003
tblVehicleEF	UBUS	1.4090e-003	7.5000e-005
tblVehicleEF	UBUS	3.7100e-003	4.2400e-004
tblVehicleEF	UBUS	0.06	5.6380e-003
tblVehicleEF	UBUS	2.4860e-003	3.1500e-004
tblVehicleEF	UBUS	1.94	5.99
tblVehicleEF	UBUS	0.02	1.3810e-003
tblVehicleEF	UBUS	0.78	0.05
tblVehicleTrips	CC_TL	10.10	0.00
tblVehicleTrips	CC_TL	10.10	13.36
tblVehicleTrips	CC_TL	10.10	13.27
tblVehicleTrips	CC_TL	10.10	11.92
tblVehicleTrips	CC_TL	10.10	11.15
tblVehicleTrips	CNW_TL	7.90	0.00
tblVehicleTrips	CNW_TL	7.90	13.36
tblVehicleTrips	CNW_TL	7.90	13.27
tblVehicleTrips	CNW_TL	7.90	11.92
tblVehicleTrips	CNW_TL	7.90	11.15
tblVehicleTrips	CW_TL	18.50	0.00
tblVehicleTrips	CW_TL	18.50	13.36
tblVehicleTrips	CW_TL	18.50	13.27
tblVehicleTrips	CW_TL	18.50	11.92
tblVehicleTrips	CW_TL	18.50	11.15
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	39.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00

tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	HO_TL	12.90	8.50
tblVehicleTrips	HS_TL	9.60	8.50
tblVehicleTrips	HW_TL	19.80	8.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	6.91
tblVehicleTrips	ST_TR	20.87	0.53
tblVehicleTrips	ST_TR	1.64	1.93
tblVehicleTrips	ST_TR	49.97	41.14
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	5.90
tblVehicleTrips	SU_TR	26.73	0.68
tblVehicleTrips	SU_TR	0.76	0.82
tblVehicleTrips	SU_TR	25.24	20.78
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	7.08
tblVehicleTrips	WD_TR	1.29	1.36

tblVehicleTrips	WD_TR	32.93	0.83
tblVehicleTrips	WD_TR	11.42	8.65
tblVehicleTrips	WD_TR	42.70	35.15
tblWater	IndoorWaterUseRate	102,552,436.33	73,909,407.76
tblWater	IndoorWaterUseRate	1,818,180.00	1,310,359.97
tblWater	IndoorWaterUseRate	147,857.86	285,583.40
tblWater	IndoorWaterUseRate	64,872,818.02	46,753,755.75
tblWater	IndoorWaterUseRate	27,036,470.34	19,485,149.08
tblWater	OutdoorWaterUseRate	5,957,406.75	9,539,735.42
tblWater	OutdoorWaterUseRate	64,652,622.90	103,529,764.30
tblWater	OutdoorWaterUseRate	4,675,320.00	7,486,699.78
tblWater	OutdoorWaterUseRate	90,622.56	388,910.97
tblWater	OutdoorWaterUseRate	39,760,759.43	63,669,838.40
tblWater	OutdoorWaterUseRate	16,570,739.89	26,535,115.18
tblWoodstoves	NumberCatalytic	78.70	0.00
tblWoodstoves	NumberNoncatalytic	78.70	0.00

2.0 Emissions Summary

2.1 Overall Construction - Project does not have any changes in construction emissions; therefore, no modeling data is presented.

2.1 Overall Construction - Project does not have any changes in construction emissions; therefore, no modeling data is presented.

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857
Energy											0.0000	2,437.6611	2,437.6611	0.2091	0.0468	2,456.8471
Mobile											0.0000	30,033.3809	30,033.3809	1.8607	0.0000	30,079.8978
Waste											1,037.4503	0.0000	1,037.4503	61.3116	0.0000	2,570.2391
Water											44.9689	590.5079	635.4768	4.6739	0.1205	788.2225
Total											**1,082.4192**	**33,088.1017**	**34,170.5209**	**68.0805**	**0.1673**	**35,922.3923**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857
Energy											0.0000	2,437.6611	2,437.6611	0.2091	0.0468	2,456.8471
Mobile											0.0000	30,033.3809	30,033.3809	1.8607	0.0000	30,079.8978
Waste											1,037.4503	0.0000	1,037.4503	61.3116	0.0000	2,570.2391
Water											44.9689	590.5079	635.4768	4.6739	0.1205	788.2225
Total											**1,082.4192**	**33,088.1017**	**34,170.5209**	**68.0805**	**0.1673**	**35,922.3923**

	ROG	NOx	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**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	1,770.0000
Vegetation Land Change	-2,352.1050
Total	**-582.1050**

3.0 Construction Detail - Project does not have any changes in construction emissions; therefore, no modeling data is presented.

3.0 Construction Detail - Project does not have any changes in construction emissions; therefore, no modeling data is presented.

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	30,033.3809	30,033.3809	1.8607	0.0000	30,079.8978
Unmitigated											0.0000	30,033.3809	30,033.3809	1.8607	0.0000	30,079.8978

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Condo/Townhouse	11,143.92	10,876.34	9286.60	33,540,083	33,540,083
Elementary School	1,020.00	0.00	0.00	3,543,072	3,543,072
Health Club	2.08	1.33	1.70	9,247	9,247
Office Park	3,157.25	704.45	299.30	10,407,114	10,407,114
Regional Shopping Center	12,829.75	15,016.10	7584.70	50,297,389	50,297,389
Total	28,153.00	26,598.22	17,172.30	97,796,904	97,796,904

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Condo/Townhouse	8.50	8.50	8.50	40.20	19.20	40.60	100	0	0
Elementary School	13.36	13.36	13.36	65.00	30.00	5.00	100	0	0
Health Club	13.27	13.27	13.27	16.90	64.10	19.00	100	0	0
Office Park	11.92	11.92	11.92	33.00	48.00	19.00	100	0	0
Regional Shopping Center	11.15	11.15	11.15	16.30	64.70	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930
Condo/Townhouse	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930
Elementary School	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930
Health Club	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930
Office Park	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930
Regional Shopping Center	0.532784	0.066872	0.193040	0.118759	0.025135	0.007041	0.019394	0.027484	0.001447	0.001699	0.004736	0.000679	0.000930

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

ES_Operational_2030 - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2,187.6211	2,187.6211	0.2043	0.0423	2,205.3213
Electricity Unmitigated											0.0000	2,187.6211	2,187.6211	0.2043	0.0423	2,205.3213
NaturalGas Mitigated											0.0000	250.0400	250.0400	4.7900e-003	4.5800e-003	251.5258
NaturalGas Unmitigated											0.0000	250.0400	250.0400	4.7900e-003	4.5800e-003	251.5258

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.49951e+006											0.0000	133.3835	133.3835	2.5600e-003	2.4500e-003	134.1761
Elementary School	250810											0.0000	13.3842	13.3842	2.6000e-004	2.5000e-004	13.4637
Health Club	59150											0.0000	3.1565	3.1565	6.0000e-005	6.0000e-005	3.1752
Office Park	1.3797e+006											0.0000	73.6261	73.6261	1.4100e-003	1.3500e-003	74.0636
Regional Shopping Center	496400											0.0000	26.4898	26.4898	5.1000e-004	4.9000e-004	26.6472
Total												**0.0000**	**250.0400**	**250.0400**	**4.8000e-003**	**4.6000e-003**	**251.5258**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.49951e+006											0.0000	133.3835	133.3835	2.5600e-003	2.4500e-003	134.1761
Elementary School	250810											0.0000	13.3842	13.3842	2.6000e-004	2.5000e-004	13.4637
Health Club	59150											0.0000	3.1565	3.1565	6.0000e-005	6.0000e-005	3.1752
Office Park	1.3797e+006											0.0000	73.6261	73.6261	1.4100e-003	1.3500e-003	74.0636
Regional Shopping Center	496400											0.0000	26.4898	26.4898	5.1000e-004	4.9000e-004	26.6472
Total												**0.0000**	**250.0400**	**250.0400**	**4.8000e-003**	**4.6000e-003**	**251.5258**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	6.7682e+006	953.5125	0.0890	0.0184	961.2274
Elementary School	339221	47.7898	4.4600e-003	9.2000e-004	48.1765
Health Club	22050	3.1064	2.9000e-004	6.0000e-005	3.1316
Office Park	4.69025e+006	660.7683	0.0617	0.0128	666.1146
Regional Shopping Center	3.7084e+006	522.4440	0.0488	0.0101	526.6712
Total		**2,187.6211**	**0.2043**	**0.0423**	**2,205.3213**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	6.7682e+006	953.5125	0.0890	0.0184	961.2274
Elementary School	339221	47.7898	4.4600e-003	9.2000e-004	48.1765
Health Club	22050	3.1064	2.9000e-004	6.0000e-005	3.1316
Office Park	4.69025e+006	660.7683	0.0617	0.0128	666.1146
Regional Shopping Center	3.7084e+006	522.4440	0.0488	0.0101	526.6712
Total		**2,187.6211**	**0.2043**	**0.0423**	**2,205.3213**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857
Unmitigated											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											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
Landscaping											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857
Total											**0.0000**	**26.5518**	**26.5518**	**0.0254**	**0.0000**	**27.1857**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											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
Landscaping											0.0000	26.5518	26.5518	0.0254	0.0000	27.1857
Total											**0.0000**	**26.5518**	**26.5518**	**0.0254**	**0.0000**	**27.1857**

7.0 Water Detail

7.1 Mitigation Measures Water

ES_Operational_2030 - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	635.4768	4.6739	0.1205	788.2225
Unmitigated	635.4768	4.6739	0.1205	788.2225

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 9.53974	14.9315	1.3900e-003	2.9000e-004	15.0523
Condo/Townhouse	73.9094 / 103.53	321.0724	2.4361	0.0626	400.6351
Elementary School	1.31036 / 7.4867	14.5376	0.0440	1.2800e-003	16.0197
Health Club	0.285583 / 0.388911	1.2232	9.4100e-003	2.4000e-004	1.5305
Office Park	46.7538 / 63.6698	200.2540	1.5408	0.0396	250.5609
Regional Shopping Center	19.4851 / 26.5351	83.4581	0.6421	0.0165	104.4240
Total		**635.4768**	**4.6739**	**0.1205**	**788.2225**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 9.53974	14.9315	1.3900e-003	2.9000e-004	15.0523
Condo/Townhouse	73.9094 / 103.53	321.0724	2.4361	0.0626	400.6351
Elementary School	1.31036 / 7.4867	14.5376	0.0440	1.2800e-003	16.0197
Health Club	0.285583 / 0.388911	1.2232	9.4100e-003	2.4000e-004	1.5305
Office Park	46.7538 / 63.6698	200.2540	1.5408	0.0396	250.5609
Regional Shopping Center	19.4851 / 26.5351	83.4581	0.6421	0.0165	104.4240
Total		**635.4768**	**4.6739**	**0.1205**	**788.2225**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,037.4503	61.3116	0.0000	2,570.2391
Unmitigated	1,037.4503	61.3116	0.0000	2,570.2391

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2624.07	532.6625	31.4795	0.0000	1,319.6488
Elementary School	48.75	9.8958	0.5848	0.0000	24.5165
Health Club	0	0.0000	0.0000	0.0000	0.0000
Office Park	1424	289.0591	17.0829	0.0000	716.1318
Regional Shopping Center	1014	205.8328	12.1644	0.0000	509.9421
Total		**1,037.4503**	**61.3116**	**0.0000**	**2,570.2391**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2624.07	532.6625	31.4795	0.0000	1,319.6488
Elementary School	48.75	9.8958	0.5848	0.0000	24.5165
Health Club	0	0.0000	0.0000	0.0000	0.0000
Office Park	1424	289.0591	17.0829	0.0000	716.1318
Regional Shopping Center	1014	205.8328	12.1644	0.0000	509.9421
Total		**1,037.4503**	**61.3116**	**0.0000**	**2,570.2391**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-582.1050	0.0000	0.0000	-582.1050

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	23.5 / 0	-101.2850	0.0000	0.0000	-101.2850
Scrub	157.4 / 0	-2,250.8200	0.0000	0.0000	-2,250.8200
Total		**-2,352.1050**	**0.0000**	**0.0000**	**-2,352.1050**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	2500	1,770.0000	0.0000	0.0000	1,770.0000
Total		**1,770.0000**	**0.0000**	**0.0000**	**1,770.0000**