# RELATED BRISTOL SPECIFIC PLAN PROJECT

## SCH NO. 2020029087

prepared for
City of Santa Ana
20 Civic Center Plaza, M-20
Santa Ana, CA 92702

prepared with the assistance of
**EPD, Solutions Inc.**
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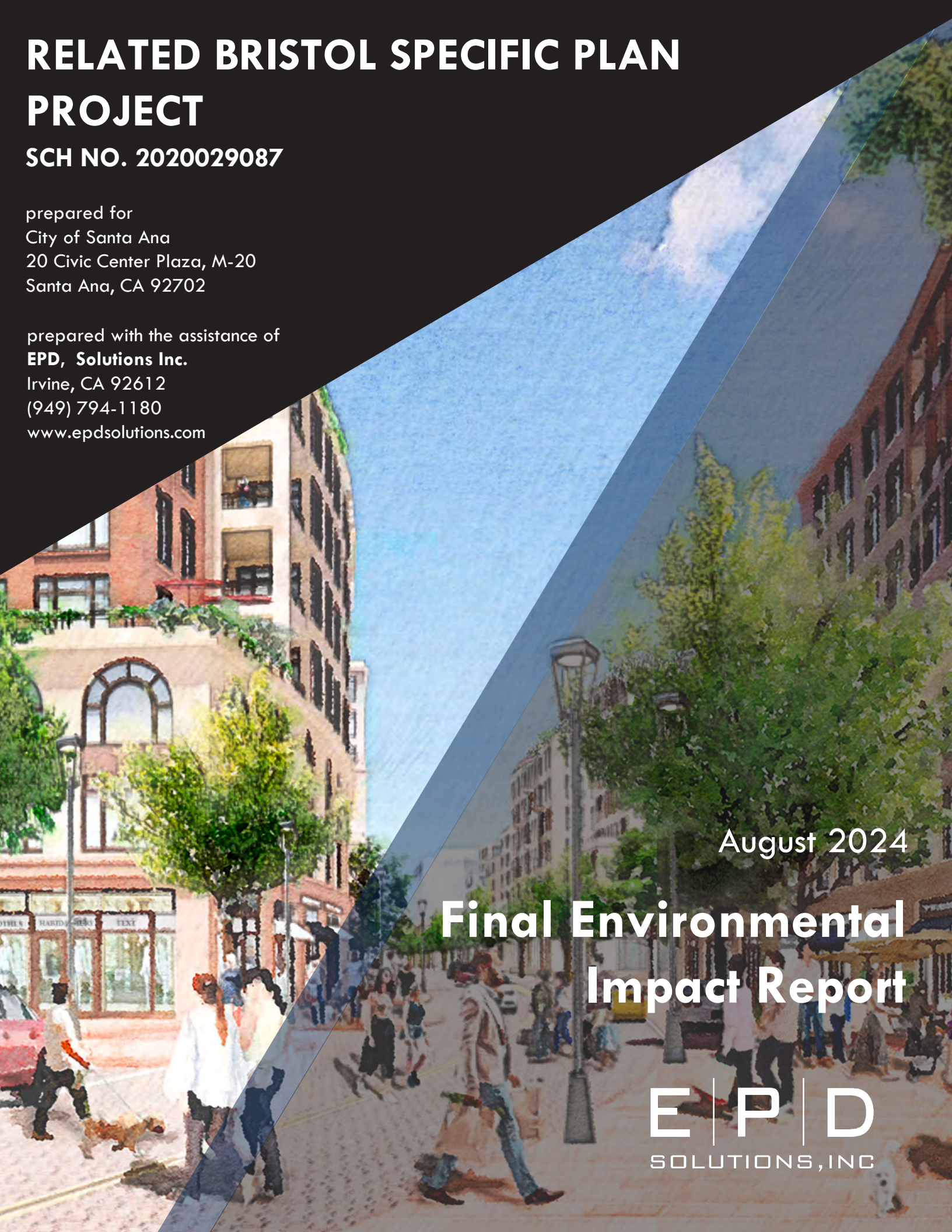

August 2024

# Final Environmental Impact Report

EPD SOLUTIONS, INC

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# FINAL
# ENVIRONMENTAL IMPACT REPORT
## RELATED BRISTOL SPECIFIC PLAN PROJECT
## SANTA ANA, CALIFORNIA
### STATE CLEARINGHOUSE NO. 2020029087

**PREPARED FOR:**

**CITY OF SANTA ANA**
20 CIVIC CENTER PLAZA, M-25
SANTA ANA, CA 92702
CONTACT: Ali Pezeshkpour, AICP, Planning Manager

**PREPARED BY:**

ENVIRONMENT | PLANNING | DEVELOPMENT
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August 2024

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# APPENDICES

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| °C | degrees celsius |
| µg/m³ | micrograms per cubic meter |
| AB 52 | California Assembly Bill 52 |
| ACM | asbestos-containing material |
| AF | acre-feet |
| ALUC | Airport Land Use Commission |
| ALUCP | Airport Land Use Compatibility Plan |
| amsl | above mean sea level |
| AQIA | Air Quality Impact Analyses |
| AQMP | Air Quality Management Plan |
| APN | Assessor's Parcel Number |
| ATCM | airborne toxic control measure |
| BAAQMD | Bay Area Air Quality Management District |
| BACM | best available control measure |
| BACT | best available control technology |
| Basin | South Coast Air Quality Basin |
| BAU | business as usual |
| BFE | base flood elevation |
| bgs | below ground surface |
| BMPs | Best Management Practices |
| CAA | Clean Air Act of 1970 |
| CAAA | CAA Amendments of 1990 |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CALGreen | California Green Building Standards Code |
| CAP | Climate Action Plan of 2013 |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CCAA | California Clean Air Act of 1988 |
| CDFW | California Department of Fish and Wildlife |
| CC&Rs | Covenants, Conditions, and Restrictions |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CESA | California Endangered Species Act |
| CGEU | California Gas and Electric Utilities 2016 California Gas Report |
| CGS | California Geological Survey |
| $CH_4$ | methane |
| CHAPIS | Community Health Air Pollution Information System (CARB) |
| CHRIS | California Historical Resources Inventory System |
| CNDDB | California Natural Diversity Database |
| CNEL | community noise equivalent level |
| CNPS | California Native Plant Society |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| CRHR | California Register of Historical Resources |
| CTP | Clean Truck Program |
| CUP | Conditional Use Permit |
| dB | decibel |

| | |
|---|---|
| dBA | A-weighted decibels |
| DPM | diesel particulate matter |
| DTSC | Department of Toxic Substances Control |
| EIR | Environmental Impact Report |
| EMS | Emergency Medical Services |
| ESA | Environmental Site Assessment |
| FAR | floor area ratio |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act of 1973 |
| FMMP | Farmland Mapping and Monitoring Program |
| gal/day | gallons per day |
| GHG | greenhouse gas |
| GWP | global warming potential |
| Handbook | Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005) |
| HAPs | hazardous air pollutants |
| HCM | Highway Capacity Manual |
| HCP | Habitat Conservation Plan |
| HDT | Heavy Duty Trucks |
| HFCs | hydroflourocarbons |
| Hot Spots Act | Air Toxics Hot Spots Information and Assessment Act of 1987 |
| HP | horsepower |
| HPLV | High Pressure Low Volume |
| HVAC | heating, ventilating, and air conditioning |
| ICU | intersection capacity utilization |
| I | Interstate |
| I-5 | Santa Ana Freeway |
| LBP | lead-based paint |
| LCFS | Low Carbon Fuel Standard |
| LEED | Leadership in Energy and Environmental Design |
| LEV | Low Emission Vehicle |
| LID | low impact development |
| LOS | level of service |
| LSTs | localized significance thresholds |
| MACT | maximum available control technology |
| MBTA | Migratory Bird Treaty Act of 1918 |
| MCC | Material Culture Consulting |
| mgd | million gallons per day |
| MMRP | Mitigation Monitoring and Reporting Program |
| MMT | million metric tons |
| MPO | metropolitan planning organization |
| MT | metric tons |
| MT $CO_2e$ | metric tons of carbon dioxide equivalent |
| NAAQS | National Ambient Air Quality Standards |
| $N_2O$ | nitrous oxide |
| NAHC | Native American Heritage Commission |
| NALs | numeric action levels |
| NCCP | Natural Community Conservation Plan |
| NESHAP | national emissions standards for HAPs |
| $NH_3$ | ammonia |
| NHPA | National Historic Preservation Act of 1966 |
| NHTSA | National Highway Traffic and Safety Administration |
| NMC | New Model Colony |

| | |
|---|---|
| NOP | Notice of Preparation |
| $NO_2$ | nitrogen oxide |
| $NO_x$ | nitrogen oxide |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | U.A. Department of Agriculture Natural Resources Conservation Service |
| $O_3$ | ozone |
| ODC | Ontario Development Code |
| ONT | Ontario International Airport |
| PA | Planning Area |
| Pb | lead |
| PDF | project design feature |
| PFCs | perflourocarbons |
| $PM_{2.5}$ | particulate matter less than 2.5 micrometers in aerodynamic diameter |
| $PM_{10}$ | particulate matter less than 10 micrometers in aerodynamic diameter |
| ppb | parts per billion |
| PPP | Plans, Programs, and Policies |
| PRC | Public Resources Code |
| PRIMP | Paleontological Resources Impact Mitigation Plan |
| PWS | public water supplier |
| REC | recognized environmental conditions |
| ROG | reactive organic gas |
| RTP | Reparational Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SB 18 | California Senate Bill 18, Ch. 905 (2004) |
| SC | Standard Condition |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCCIC | South Central Coastal Information Center |
| SCE | Southern California Edison Company |
| SCS | Sustainable Communities Strategy |
| SF | square feet |
| $SF_6$ | sulfur hexaflouride |
| SIP | state implementation plan |
| $SO_2$ | sulfur dioxide |
| $SO_3$ | sulfur trioxide |
| $SO_4$ | sulfates |
| SoCalGas | Southern California Gas Company |
| $SO_x$ | sulfur oxides |
| SP | Specific Plan |
| SR | State Route |
| SR-60 | Pomona Freeway |
| SR-83 | Euclid Avenue |
| SRA | Source Receptor Area |
| SWPPP | Storm Water Pollution Prevention Plan |
| SWQMP | Storm Water Quality Management Plan |
| SWRCB | Storm Water Resources Control Board |
| TACs | toxic air contaminants |
| TIA | Traffic Impact Analysis |
| tpy | tons per year |
| TTCP | traditional tribal cultural places |

| | |
|---|---|
| TUA | traditional use area |
| USDA | United States Department of Agriculture |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| UTRs | utility tractors |
| UWMP | Urban Water Management Plan |
| VdB | velocity levels expressed in decibel notation |
| VMT | vehicle miles travelled |
| VOC | volatile organic compounds |
| WDR | Waste Discharge Requirements |
| WFA | Water Facilities Authority |
| Williamson Act | California Land Conservation Act of 1965 |
| WQC | Water Quality Certification |

# 1. Introduction

This Final Environmental Impact Report (FEIR; Final EIR) has been prepared in conformance with the environmental policy guidelines for the implementation of the California Environmental Quality Act (CEQA) to evaluate the environmental effects that may result from construction and operation of the proposed Related Bristol Specific Plan Project (proposed Project).

According to CEQA Guidelines Section 15132, the FEIR shall consist of:

(a) The Draft Environmental Impact Report (DEIR; Draft EIR) or a revision of the Draft EIR;

(b) Comments and recommendations received on the Draft EIR, either verbatim or in summary;

(c) A list of persons, organizations, and public agencies commenting on the Draft EIR;

(d) The responses of the lead agency to significant environmental points raised in the review and consultation process;

(e) Any other information added by the lead agency.

This document contains responses to comments received on the Draft EIR during the public review period, which began July 5, 2023 and ended on August 21, 2023 and comments received on the Draft EIR after the public review period. This document has been prepared in accordance with CEQA, the State CEQA Guidelines, and represents the independent judgment of the lead agency, the City of Santa Ana. This document and the circulated Draft EIR comprise the Final EIR in accordance with CEQA Guidelines, Section 15132.

## 1.1 Format of the Final EIR

The following chapters are contained within this document:

**Chapter 1, Introduction.** This chapter describes CEQA requirements and the content of the Final EIR.

**Chapter 2, Response to Comments.** This chapter provides a list of persons, agencies, and organizations who commented on the Draft EIR, as well as copies of their comment letters received during and following the public review period, and individual responses to their comments.

**Chapter 3, Revisions to the Draft EIR.** This chapter contains revisions made to the Draft EIR as a result of the comments received by agencies and organizations as described in Chapter 3, and/or errors and omissions discovered subsequent to release of the Draft EIR for public review.

The City of Santa Ana has determined that none of this material constitutes significant new information that requires recirculation of the Draft EIR for further public comment under CEQA Guidelines Section 15088.5. The additional material clarifies existing information prepared in the Draft EIR and does not present any new substantive information. None of this new material indicates that the project would result in a significant new environmental impact not previously disclosed in the Draft EIR. Additionally, none of this material indicates that there would be a substantial increase in the severity of a previously identified environmental impact that would not be mitigated, or that there would be any of the other circumstances requiring recirculation described in Section 15088.5.

**Chapter 4, Mitigation, Monitoring, and Reporting Program.** This chapter includes the Mitigation Monitoring and Reporting Program (MMRP). CEQA requires lead agencies to "adopt a reporting and mitigation monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment" (CEQA Section 21081.6, CEQA

Guidelines Section 15097). The MMRP was prepared based on the mitigation measures included in this Final EIR and has been included as Chapter 4.0.

## 1.2 CEQA Requirements Regarding Comments and Responses

CEQA Guidelines Section 15204(a) outlines parameters for submitting comments and reminds persons and public agencies that the focus of review and comment of Draft EIRs should be "*on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible … CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*"

CEQA Guidelines Section 15204(c) further advises, "*Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section.*"

In accordance with CEQA, Public Resources Code (PRC) Section 21092.5, copies of the written responses to public agencies are being forwarded to those agencies at least 10 days prior to certification of the Final EIR, with copies of this Final EIR document, which conforms to the legal standards established for response to comments on the Draft EIR pursuant to CEQA. Pursuant to CEQA Guidelines Section 15089(b), lead agencies may provide an opportunity for review of the Final EIR by the public or by commenting agencies before a project is approved, but is not required to do so.

# 2. Response to Comments

Section 15088 of the CEQA Guidelines requires the Lead Agency, the City of Santa Ana to evaluate comments on environmental issues received from public agencies, organizations, and interested parties who reviewed the Draft EIR and prepare written responses. This section provides all written responses received on the Draft EIR and the City of Santa Ana's responses to each comment of each comment letter. Comment letters and specific comments are numbered for reference purposes.

The following is a list of public agencies, organizations, and residents and interested parties that submitted comments on the Draft EIR during and after the public review period. The comment letters received on the Draft EIR and responses to those comments are provided on the following pages.

| Letter Number | Commenting Agency/Organization/ Individual | Comment Date |
|---|---|---|
| **Agencies** | | |
| A1 | California Department of Transportation | August 14, 2023 |
| A2 | Orange County Fire Authority | August 14, 2023 |
| A3 | Orange County Airport Land Use Commission | August 16, 2023 |
| **Organizations** | | |
| O1 | Lozeau Drury LLP on behalf of Supporters Alliance for Environmental Responsibility | August 16, 2023 |
| O2 | Orange County Professional Firefighters Association IAFF Local 3631 | August 17, 2023 |
| O3 | Mitchell M. Tsai on behalf of Southwest Carpenters "SWMSRCC" | August 18, 2023 |
| O4 | UNITE HERE Local 11 | August 21, 2023 |
| **Individuals** | | |
| I1 | John Arnold | August 3, 2023 |
| I2 | Vincent W. Salvati | August 4, 2023 |
| I3 | Patricia DelGeorge | August 10, 2023 |
| I4 | David Mackler | August 17, 2023 |
| I5 | Sue Grasse | August 18, 2023 |
| I6 | Gil Hess | August 20, 2023 |
| I7 | Louis Steers | August 20, 2023 |
| I8 | Klein Klein | August 21, 2023 |
| I9 | Anonymous Resident | August 21, 2023 |

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**LETTER A1: California Department of Transportation, dated August 14, 2023 (7 pages)**

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

**California Department of Transportation**

DISTRICT 12
1750 East 4th Street, Suite 100 | SANTA ANA, CA 92705
(657) 328-6000 | FAX (657) 328-6522 TTY 711
https://dot.ca.gov/caltrans-near-me/district-12

August 14, 2023

Ali Pezeshkpour
City of Santa Ana Planning Division
20 Civic Center Drive
Santa Ana, CA 92708

File: LDR/CEQA
SCH#: 2020029087
LDR LOG #2020-02323
I-405, SR-55

Dear Mr. Pezashkpour,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Draft Environmental Impact Report (EIR) for the Related Bristol Specific Plan Project. The Project proposes a Specific Plan to replace the existing General Commercial (C2) and Regional Commercial (CR) zoning on the Project site. The Specific Plan would include a site-specific plan for the Project site, identifying the allowable site uses, development standards, design guidelines, and the processes and procedures for the approval of future development within the Specific Plan area. In addition to the proposed Specific Plan, the Project also includes redevelopment of the site in three phases. The Project proposes to demolish the existing shopping center and related infrastructure and provide a mixed-use development with (i) up to 3,750 multi-family residential units; (ii) up to 350,000 sf of commercial uses; (iii) a hotel with up to 250 rooms; (iv) a senior living/continuum of care use with up to 200 units; and (v) approximately 13. I acres of parks, pedestrian paseos, and common open space. The Project would result in a FAR of 2.7 and density of 92 du/ac. Parking would be provided by above- and below-ground parking structures providing shared parking as well as ground level parking. The nearest state facility to the project site is Interstate 405 (I-405). **A1.1**

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. **A1.2**

Caltrans is a responsible agency on this project and has the following comments:

1. Caltrans Comment letter dated April 13, 2023, (copy attached) on the Notice of Preparation for Supplemental Draft Environmental Report was not included and addressed in the latest July 2023 submittal of the DEIR. Please see the attached copy of the email exchanges, and address/respond to that comment letter and the following comments before the Final EIR is approved. **A1.3**

"Provide a safe and reliable transportation network that serves all people and respects the environment"

**Traffic Operations**

2. Please respond to comment number 3 in our letter dated April 13, 2023. The latest Draft supplemental EIR, Appendix O (VTM Assessment) didn't address if the project has any potential impacts on storage capacity for the right turn and left turn pockets for the on-ramps and off-ramps from local city streets within the state right of way. Further, the latest Draft EIR didn't clarify it there is any potential spill beyond designated storage lane. Any potential spill beyond designated storage lane as a result of this project, must be addressed for safety concerns. Please provide responses to all our comments before the final EIR is approved. **A1.4**

**System Planning**

3. Consider ensuring that the proposed bicycle facilities in the project provide connections to other existing bicycle facilities in the project vicinity. Caltrans supports the inclusion of Complete Streets facilities, providing connectivity to nearby bicycle facilities enhances the overall bicycle network. Regional connectivity is important to further encourage residents and visitors to utilize active transportation, promote mode shift, and improve first-/last-mile connections. **A1.5**

**Freight**

4. While some truck movements are accounted for in the construction phase of the project, the document does address our previous comments in our April 13, 2023, letter. Therefore, previous comments stand. Specifically, the following should be addressed: **A1.6**
   a) Ensure that truck parking, ingress and egress, and staging will not interfere with vehicle parking, pedestrian paths, or bicycle lanes/bicycle parking.
   b) Establish freight pick up & drop off times that do not coincide with peak commute hours to reduce passenger vehicle conflicts and congestion for freight. Consider designating on-street freight-only parking and delivery time windows so trucks will not resort to double parking, thus causing street traffic congestion. **A1.7**
   c) For the 3,750 multifamily residential units proposed, consider how many individual packages will be delivered daily to individual residences. Amazon lockers or an equivalent shared drop-off location can help reduce the amount of driving done by delivery trucks and can increase the efficiency of deliveries. **A1.8**
   d) For the proposed Hotel, consider installing zero or near zero emissions infrastructure to fuel zero or near zero emissions trucks and cargo handling equipment (such as electric charging stations for truck batteries) **A1.9**

"Provide a safe and reliable transportation network that serves all people and respects the environment"

e) Work with local partners and community representatives to mitigate any truck traffic routing onto residential streets or conflicting with other road users, including and especially bicyclists and pedestrians. **A1.10**

**Equity**

5. The Department firmly embraces racial equity, inclusion, and diversity. These values are foundational to achieving our vision of a cleaner, safer, and more accessible and more connected transportation system. Please consider including a discussion on equity in the environmental document. **A1.11**

**Encroachment Permit**

6. In the event of any work performed within Caltrans right-of-way an encroachment permit will be required prior to construction. Please submit all applications and associated documents/plans via email to D12.Permits@dot.ca.gov until further notice. Caltrans Encroachment Permits will be transitioning to an online web portal base for all applications in Fall 2023. Further details to be announced on the Caltrans Encroachment Permits homepage. Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (657) 328-6246. For specific details on Caltrans Encroachment Permits procedure and any future updates regarding the application process and permit rates, please visit the Caltrans Encroachment Permits homepage at https://dot.ca.gov/programs/traffic-operations/ep. **A1.12**

Please continue to coordinate with Caltrans for any future developments that could potentially impact State transportation facilities. If you have any questions, please do not hesitate to contact Maryam Molavi, at Maryam.Molavi@dot.ca.gov. **A1.13**

Sincerely,

Scott Shelley
Branch Chief, Regional-LDR-Climate Change-Transit Planning
District 12

Attachments:
Caltrans Comment letter dated April 13,2023
Emails dated April 12 to July 11, 2023

"Provide a safe and reliable transportation network that serves all people and respects the environment"

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

**California Department of Transportation**

DISTRICT 12
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April 13, 2023

Ali Pezeshkpour
City of Santa Ana Planning Division
20 Civic Center Plaza, M-20
Santa Ana, CA 92701

File: IGR/CEQA
SCH#2020029087
LDR LOG #2020-02243
I-405 & SR-55

Dear Mr. Pezeshkpour

Thank you for including the California Department of Transportation (Caltrans) in the review of the Notice of Preparation of a Supplemental Environmental Impact Report and Public Scoping Meeting for the Related Bristol Specific Plan Project. The Project proposes a Specific Plan to replace the existing General Commercial (C2) and Regional Commercial (CR) zoning on the Project site. The Specific Plan would include a site-specific plan for the Project site, identifying the allowable site uses, development standards, design guidelines, and the processes and procedures for the approval of future development within the Specific Plan area. In addition to the proposed Specific Plan, the Project also includes redevelopment of the site in three phases. The Project proposes to demolish the existing shopping center and related infrastructure and provide a mixed-use development with (i) up to 3,750 multi-family residential units; (ii) up to 350,000 sf of commercial uses; (iii) a hotel with up to 250 rooms; (iv) a senior living/continuum of care use with up to 200 units; and (v) approximately 13.1 acres of parks, pedestrian paseos, and common open space. The Project would result in a FAR of 2.7 and density of 92 du/ac. Parking would be provided by above- and below-ground parking structures providing shared parking as well as ground level parking. The nearest state facility to the project site is Interstate 405 (I-405-). **A1.14**

The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Caltrans is a responsible agency on this project and has the following comments:

**Traffic Operations**

1. A Vehicle Miles Traveled (VMT) based Traffic Impact Study (TIS) should be provided for this project. Please use the Governor's Office of Planning and research guidance to identify VMT related impacts. **A1.15**

"Provide a safe and reliable transportation network that serves all people and respects the environment"

2. The TIS should identify the proposed project's near term and long-term potential safety or operational impacts on or adjacent to any existing or proposed state facilities. **A1.16**

3. The TIS needs to address potential impacts on storage capacity for the right turn and left turn pockets for the on-ramps and off-ramps from local city streets within the State right of way. In addition, all potential spill beyond designated storage lane must be addressed for safety concern. **A1.17**

**System Planning**

4. Caltrans supports the inclusion of bicycle storage facilities pursuant to CALGreen code. Caltrans also recommends following bicycle parking best practices described in the "Essentials of Bike Parking" guide created by the Association of Pedestrian and Bicycle Professionals (link to online PDF: https://www.apbp.org/Publications). Bike parking should be installed a minimum of 24" away from walls and other objects (e.g., trash cans, plants, etc.). With the growing popularity of electric bikes and cargo/utility bikes (which tend to be bigger and heavier), Caltrans also recommends that bicycle storage facilities be designed to accommodate a range of bicycle styles, sizes, and weights. **A1.18**

5. Caltrans supports the design of Complete Streets that include high-quality pedestrian, bicycle, and transit facilities that are safe and comfortable for users of all ages and abilities. Improvements may include providing secure bicycle parking, pedestrian-oriented LED lighting, wayfinding signage, and comfortable connections to nearby active transportation and/or transit facilities. Complete Streets improvements also promote regional connectivity, improve air quality, reduce congestion, promote improved first-/last-mile connections, and increase safety for all modes of transportation. Continue to incorporate Complete Streets in project development. **A1.19**

**Transportation Planning (Goods Movement/Freight)**

6. Consider how many individual packages will be delivered daily to individual residences within the areas identified for increased housing production. Shared drop-off locations can help reduce the amount of driving done by delivery trucks and can increase the efficiency of deliveries in densely developed areas. Similarly, high-density residential developments should consider automated parcel systems (i.e., Amazon Lockers) so that deliveries can be made with one truck stop instead of multiple stops to individual residences. **A1.20**

7. As the General Plan is implemented, consider accounting for off-street truck parking to help free up on-street space for other modes, such as city traffic, walking, and bicycling. Similarly, utilize alley space or similar areas, if available, to reduce the need for on-street parking which may conflict with highway/street flows. **A1.21**

8. If truck parking (i.e., for home deliveries) is to be on-street, ensure the width of the parking lane is wide enough for freight trucks without encroaching on bicycle lanes or street lanes. **A1.22**

9. Please consider designated on-street freight-only parking and delivery time windows to reduce the need for double parking. This strategy also helps prevent street traffic congestion. **A1.23**

10. Please ensure that, throughout the individual study areas, the city provides posted speed signs for truckers to follow. **A1.24**

11. Bicycle parking design may need to accommodate cargo bikes, such as for food delivery services, to encourage and facilitate the growing use of food delivery services and parcel deliveries. This can alleviate the need for delivery trucks and associated GHG emissions. **A1.25**

12. Caltrans recognizes our responsibility to assist communities of color and under-served communities by removing barriers to provide a more equitable transportation system for all. **A1.26**

**Equity**

13. The Department firmly embraces racial equity, inclusion, and diversity. These values are foundational to achieving our vision of a cleaner, safer, and more accessible and more connected transportation system. Please consider including a discussion on equity in the environmental document. **A1.27**

**Transit**

14. Provide discussion about City's multimodal mobility strategies. City should look for transit opportunities to connect current bus services and expand services for regional connectivity to include connectivity to the closest train station for Metrolink and Amtrak Pacific Surfliner rail services. **A1.28**

15. Encourage the use of transit among future residents, visitors, and workers of the development. Increasing multimodal transportation will lead to a reduction to congestion, Vehicle Miles Traveled, and improve air quality. **A1.29**

16. Provide adequate wayfinding signage to transit stops within the project vicinity and local roadways. **A1.30**

**Encroachment Permit**

17. Any project work proposed in the vicinity of the State right of way would require an encroachment permit and all environmental concerns must be adequately addressed. If the environmental documentation for the project does not meet Caltrans's requirements for work done within State right of way, additional documentation would be required before approval of the encroachment permit. Please coordinate with Caltrans to meet requirements for any work within or near State right of way. For specific details for Encroachment Permits procedure, please refer to the Caltrans's Encroachment Permits Manual at: http://www.dot.ca.gov/hq/traffops/developserv/permits **A1.31**

Please continue to coordinate with Caltrans for any future developments that could potentially impact State transportation facilities. If you have any questions, please do not hesitate to contact Maryam Molavi, at Maryam.Molavi@dot.ca.gov. **A1.32**

Sincerely,

Scott Shelley
Branch Chief, Regional-LDR-Transit Planning
District 12

"Provide a safe and reliable transportation network that serves all people and respects the environment"

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**Response to Comment Letter A1: California Department of Transportation**

**Response A1.1:** This comment provides an introduction to the letter from the California Department of Transportation (Caltrans). The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response A1.2:** In response to this comment letter, Caltrans has been added as a responsible agency for the Project based on the potential for future Specific Plan implementing developments to require an encroachment permit. Responses to the individual comments are included in Responses A1.3 through A1.32, below.

**Response A1.3:** As discussed via email with Caltrans, the comment letter provided on April 13, 2023 on the Notice of Preparation (NOP) for the Project was inadvertently left out of the appendix to the Draft Supplemental EIR. However, the City has included the letter in this Final Supplemental EIR document and has provided responses to all comments included (therein in Responses A1.14 through A1.15). None of the comments provide evidence of new significant impacts not previously disclosed as part of the Draft Supplemental EIR or of a substantial increase in the severity of an environmental impact, as detailed below.

**Response A1.4:** In regard to potential impacts on storage capacity for on-ramps and off-ramps within the state right of way and spill beyond storage lanes, a queueing analysis was conducted for the Project site as part of a supplemental traffic analysis from the Traffic Impact Analysis (TIA), which determined that the Project would result in adequate storage capacity for the Caltrans on- and off-ramps. At ramps in which the queueing exceeds the storage provided, spillover queues can be accommodated upstream of the turn pockets. Summaries of the results are provided in Tables 8, 9, 10, 11, 12, 13, and 14 of the supplemental traffic analysis (the summary is provided in Appendix A to this Final Supplemental EIR), which show that none of the analysis scenarios would result in the potential for spill beyond the designated storage lane with the exception of the Year 2045 scenario for the Bear Street at the SR-73 northbound ramp. However, this potential spill beyond the designated storage lanes would also occur without the addition of the Project in year 2045. As such, the Project would not cause a potential safety concern at Caltrans intersections or negatively affect traffic flow on the State Highway System as the existing vehicular storage capacity on the off-ramps are considered adequate.

**Response A1.5:** In regard to Complete Streets, as detailed on page 5.13-2 of the Draft Supplemental EIR, the proposed Project would implement the City's complete streets planning of the Mobility Element by providing new and improved pedestrian and bicycle circulation facilities near existing bus routes. Also, pursuant to General Plan Policy M-1.6, the proposed Specific Plan facilitates various street improvements that include widened parkways, bike lanes, improved sidewalk conditions, greenlink pedestrian path that would accommodate all users. Within the Project area, Bristol Street has Class II bike lanes on the northbound and southbound sides. The Related Bristol Specific Plan includes installation of a Class IV bike lane on Bristol Street, MacArthur Boulevard, and Sunflower Avenue with a median buffer which would connect to the existing bike lanes on Bristol Street. Therefore, the proposed Project would enhance existing bicycle facilities within the Project vicinity.

**Response A1.6:** Regarding truck parking, ingress/egress, and staging, as discussed in Section 4.5, *Loading,* of the Specific Plan, loading zones must be a minimum of 8 feet in width (pg. 4-16). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding truck parking exist. However, future developments within the Specific Plan area would include parking facilities that would be reviewed by the City, including its Planning and Building and its Public Works agencies, as part of the permitting process, such that any potential conflict between loading areas and bicycle or street lanes would not occur. Further, as discussed in Section 5.13, *Transportation*, of the Draft Supplemental EIR, the proposed Project would install an unsignalized right-turn only driveway, which would be designated for

service access only for truck deliveries to the planned grocery store, thereby limiting conflict between truck and passenger car access to the Project site.

**Response A1.7:** Regarding freight pick up and drop off times, per Section 4.5, *Loading,* of the Specific Plan, every building involving the receipt or distribution by vehicle of materials or merchandise incidental to carrying on such activity shall be provided with at least one (1) space for standing, loading and unloading of vehicles to avoid undue interference with the public use of on-site travel aisles, streets, private roadways, and alleys. Further, on-street loading times should be minimized during the business hours of 11am – 5pm where feasible (pg. 4-16). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding freight truck parking exist. However, the need and location for freight truck parking would be considered in future proposed developments within the Specific Plan area.

**Response A1.8:** In regard to Amazon lockers of package drop-off locations, shared on-street loading zones are permitted under the Specific Plan as per Chapter 5.0, *Design Guidelines* (pg. 5-7). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding shared drop-off locations, loading zones, and automated parcel systems designs exist. However, future developments within the Specific Plan area may consider the use of automated parcel systems and circulation designs, including drop-off, loading zones, and parcel systems would be reviewed by the City as part of the permitting process.

**Response A1.9:** In regard to zero or near zero emissions infrastructure for truck and cargo handling charging, requirements for electric vehicle charging stations, including truck and cargo handling charging, would be governed by the Title 24 requirements at the time of permit issuance for future developments. In addition, the Project would implement Mitigation Measure GHG-2, which requires the provision of electric vehicle charging stations per the Tier 2 standards set forth in Title 24. As such, the need for charging stations would be reviewed by the City as part of the permitting process for future implementing developments.

**Response A1.10:** In regard to truck routing on residential streets, trucks traveling to and from the Project site would be required to utilize City-designated truck routes. As such, trucks would be required to utilize MacArthur Boulevard and Bristol Street to access the Project site. Further, as discussed in Section 5.13, *Transportation*, of the Draft Supplemental EIR, the proposed Project would install an unsignalized right-turn only driveway, which would be designated for service access only for truck deliveries to the planned grocery store, thereby limiting potential for trucks to route on residential streets.

**Response A1.11:** Regarding a discussion of equity in the Draft Supplemental EIR, CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's relation to equity is not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of equity.

However, this Project would be consistent with the policies set forth in the General Plan Update (as discussed in Section 5.8, *Land Use*, of the Draft Supplemental EIR), in which multiple policies relate to environmental justice. In addition, the Draft Supplemental EIR Section 3.0, *Project Description*, and Section 5.13, *Transportation*, describe that implementation of the proposed Specific Plan would provide new multimodal transportation facilities, including, sidewalks, bicycle lanes, bus route accessibility, and roadway improvements that would increase transportation accessibility to all segments of the City's population.

**Response A1.12:** In regard to the need for an encroachment permit, it is acknowledged that an encroachment permit for any work performed within Caltrans right-of-way would need to be obtained. As discussed in the supplemental traffic analysis (Appendix A to this Final Supplemental EIR), one improvement under the jurisdiction of Caltrans is recommended (No. 37 under Year 2045 Buildout Plus Project Phases 1,

2, and 3) on Bear Street at SR-73 NB Ramps, which recommends restriping the existing westbound left-turn lane to provide a shared left/right turn lane. At the time this improvement needs to be implemented, the City would coordinate with Caltrans and an encroachment permit would be obtained as required.

**Response A1.13:** This comment requests continued coordination with Caltrans for any future developments that could potentially impact State transportation facilities. This comment does not provide any concerns or questions regarding the adequacy of the Draft Supplemental EIR. Caltrans District 12 will remain on the mailing list for the Project and will receive notification of availability of the Final Supplemental EIR, in addition to all other public notices for development projects that could potentially impact Caltrans facilities.

**Response A1.14:** This comment includes an introduction to the comment letter provided on April 13, 2023 on the Notice of Preparation for the Project. This comment provides the basis for the Caltrans letter and is general in nature. The comment does not reference a specific environmental concern for analysis within the Draft Subsequent EIR. The City recognizes Caltrans as a responsible agency and welcomes future coordination related to transportation improvements.

**Response A1.15:** The comment requests the preparation of a Vehicle Miles Traveled (VMT) based Traffic Impact Study (TIS). Consistent with the comment, a VMT Screening Memo was prepared for the Project and included as Appendix O of the Draft Supplemental EIR. The VMT analysis determined that the Project screens out of a full VMT analysis per Criteria 3 of the City of Santa Ana Traffic Impact Study Guidelines as the Project site is located in a Transit Priority Area and is consistent with the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); and therefore, would result in less than significant impacts related to VMT.

**Response A1.16:** Regarding safety or operational impacts to state facilities, a supplemental traffic analysis has been prepared for the proposed Project and includes an analysis of existing and projected peak hour operating conditions at nine State-controlled study intersections within the vicinity of the Project site (as provided in Appendix A to this Final Supplemental EIR). As shown, full buildout of the Project would not result in any safety or operational impacts to State facilities in the Existing Plus Project Phase 1, Existing Plus Project Phases 1 and 2, Existing Plus Project Phases 1, 2, and 3, Year 2030, Year 2032, or Year 2036 analysis scenarios. As discussed in the supplemental traffic analysis, operational deficiencies and queueing past ramp storage capacity would occur in the Year 2045 Plus Project Phases 1, 2, and 3 analysis scenario for the Bear Street at SR-73 northbound ramp; however, these deficiencies would also occur in the Year 2045 scenario without the Project. Summaries of the operational results are provided in Tables 1, 2, 3, 4, 5 and 6 of the supplemental traffic analysis. Therefore, these deficiencies would result from the overall buildout of the area and are not a direct result of Project implementation. However, it should be noted that automobile delay, as described by level of service or similar measure of capacity or congestion, shall not be considered an impact on the environment under CEQA.

**Response A1.17:** In regard to potential impacts on storage capacity for on-ramps and off-ramps within the state right of way and spill beyond storage lanes, a queueing analysis was conducted for the Project site as part of a supplemental traffic analysis, which determined that implementation of the Project would result in adequate storage capacity for the Caltrans on- and off-ramps, as detailed in Appendix A to this Final Supplemental EIR. At ramps in which the queueing exceeds the storage provided, spillover queue can be accommodated upstream of the turn pockets. Summaries of the results are provided in Tables 8, 9, 10, 11, 12, 13 and 14 of the supplement traffic analysis (included as Appendix A to this Final EIR), which shows that none of the analysis scenarios would result in the potential for spill beyond the designated storage lane with the exception of the Year 2045 scenario for the Bear Street at the SR-73 northbound ramp, which would also occur without the Project. As such, the Project would not cause a potential safety concern at Caltrans intersections or negatively affect traffic flow on the State Highway System as the existing vehicular storage capacity on the off-ramps are considered adequate.

**Response A1.18:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding bike parking, the proposed Project is a Specific Plan to guide future development in the area, and the Project does not include a specific development. As described in Section 3.0, *Development Plan*, of the Specific Plan, bicycle racks would be provided in conjunction with commercial, office, and residential implementing projects. Section 4.0, *Development Regulations*, provides the number of bicycle spaces and racks that are required per development. However, no specific development project is being proposed; thus, no exact construction features and details regarding bicycle rack designs exist. Instead, specifics regarding storage sizing and distance of the bike parking from walls and objects would be included in the Development Project Review (DPR) package of future proposed development project applications, which would be reviewed by the City as part of the permitting process.

**Response A1.19:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding Complete Streets, as detailed on page 5.13-2 of the Draft Supplemental EIR, the proposed Project would implement the City's complete streets planning of the Mobility Element by providing new and improved pedestrian and bicycle circulation facilities near existing bus routes. Also, pursuant to General Plan Policy M-1.6, the proposed Specific Plan facilitates various street improvements that include widened parkways, bike lanes, improved sidewalk conditions, and a greenlink pedestrian path that would accommodate all users.

Also, Chapter 5.0 of the proposed Specific Plan includes the Complete Street principles (pg. 5-3). Section 3.4.1, *Vehicular Circulation*, of the Specific Plan lists proposed street improvements. In addition, pedestrian zone street cross sections are shown on pages 4-11 to 4-14 of the Specific Plan. Also, development specific details for each proposed development within the Specific Plan area, such as bike parking, pedestrian LED lighting, and signage would be reviewed by the City as part of the permitting process.

**Response A1.20:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. In regard to the recommendation for shared drop-off locations and automated parcel systems, shared on-street loading zones are permitted under the Specific Plan as per Chapter 5.0, *Design Guidelines* (pg. 5-7). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding shared drop-off locations, loading zones, and automated parcel systems designs exist. However, future developments within the Specific Plan area may consider the use of automated parcel systems and circulation designs, including drop-off, loading zones, and parcel systems would be reviewed by the City as part of the permitting process.

**Response A1.21:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding truck parking, as per Chapter 3.0 (pg. 3-4) of the Specific Plan, parking would be largely provided through above/underground structures. In addition, there would be designated delivery/service access to the retail portion of the Project site, as shown in Figure 3-7 of the Specific Plan. As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding truck parking needs exist. However, future developments within the Specific Plan area would include parking facilities that would be reviewed by the City as part of the permitting process.

**Response A1.22:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding on-street truck parking, per Section 4.5, *Loading,* of the Specific Plan, loading zones must be a minimum of 8 feet in width (pg. 4-16). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding truck parking exist. However, future developments within the Specific Plan area would include parking facilities that would be reviewed by the City, including its Planning and Building and its Public Works agencies, as part of the permitting process, which would ensure that potential conflict between loading areas and bicycle or street lanes would not occur.

**Response A1.23:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding freight and truck parking and delivery times, per Section 4.5, *Loading,* of the Specific Plan, every building involving the receipt or distribution by vehicle of materials or merchandise incidental to carrying on such activity shall be provided with at least one (1) space for standing, loading and unloading of vehicles to avoid undue interference with the public use of on-site travel aisles, streets, private roadways, and alleys. Further, on-street loading times should be minimized during the business hours of 11 am to 5 pm where feasible (pg. 4-16). As previously mentioned, no specific development project is being proposed; thus, no exact features and details regarding freight truck parking exist. However, the need and location for freight truck parking would be considered in future proposed developments within the Specific Plan area.

**Response A1.24:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. In regard to speed limit signs, off-site street improvements would include appropriate speed signage, as required by the City's traffic engineering requirements and implemented through project specific permitting. Section 5.10, *Signage*, of the Specific Plan states that a Master Sign Program would be developed for the Specific Plan area. Onsite roadways would be required to provide speed signs pursuant to applicable state and City requirements that would also be verified through the City's development permitting procedures.

**Response A1.25:** This comment is related to Project features and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Regarding cargo bikes, as mentioned under Section 4.4, *Parking*, of the Specific Plan (pg. 4-15), bike parking would be provided based on use type. As described previously in Response A1.5, no specific development project is being proposed; thus, no exact construction features and details regarding bicycle rack designs exist. Instead, specifics regarding bike parking would be reviewed by the City as part of the permitting process for individual development projects.

**Response A1.26:** Regarding equitable transportation access, CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's relation to equity is not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of equity.

**Response A1.27:** Regarding a discussion of equity in the Draft Supplemental EIR, CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's relation to equity is not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of equity.

However, this Project would be consistent with the policies set forth in the General Plan Update (as discussed in Section 5.8, *Land Use*, of the Draft Supplemental EIR), in which multiple policies relate to environmental justice. In addition, the Draft Supplemental EIR Section 3.0, *Project Description*, and Section 5.13, *Transportation*, describe that implementation of the proposed Specific Plan would provide new multimodal transportation facilities, including, sidewalks, bicycle lanes, bus route accessibility, and roadway improvements that would increase transportation accessibility to all segments of the City's population.

**Response A1.28:** As described in the previous response, the proposed Project would increase multimodal mobility. Section 3.4.4, *Transit,* of the Specific Plan lists the existing Orange County Transportation Authority

(OCTA) bus routes that are adjacent to the Specific Plan area. In addition, Section 3.4.5, *Rideshare*, of the Specific Plan states that rideshare locations would be specifically located as a part of a Development Project Review package for future development projects. The Project includes development and improvements of existing sidewalks and bicycle routes that would connect to existing nearby developments and bus stops. OCTA bus routes and their connections to nearby train stations are also discussed in Section 5.13, *Transportation*, of the Draft Supplemental EIR.

**Response A1.29:** Regarding transit use, as discussed in the Draft Supplemental EIR Sections 5.13.3 and 5.13.6, the Project is within a Transit Priority Area and High Quality Transit Area. The Project is located in the immediate vicinity of six OCTA bus routes, some of which connect to Metrolink stations and will connect the future OC Streetcar that is now under construction. As detailed on page 5.13-12 of the Draft Supplemental EIR, the proposed Project would provide new facilities to enhance the use of public transit, pedestrian, and bicycle mobility. The Specific Plan includes provisions for the addition of a Class IV bike lane on Bristol Street, MacArthur Boulevard, and Sunflower Boulevard with a median buffer, which would enhance bicycle facilities within the Specific Plan's vicinity.

**Response A1.30:** This comment does not provide any concerns or questions regarding the adequacy of the Draft Supplemental EIR. In regard to the request for adequate wayfinding signage, Section 5.10, *Signage*, of the Specific Plan states that a Master Sign Program would be developed, to provide design guidance within the Specific Plan area. The Master Sign Program would include provision for wayfinding signs.

**Response A1.31:** In regard to the need for an encroachment permit, it is acknowledged that an encroachment permit for any work performed within Caltrans right-of-way would need to be obtained. As discussed in the supplemental traffic analysis (Appendix A to this Final Supplemental EIR), one improvement under the jurisdiction of Caltrans is recommended (No. 37 under Year 2045 Buildout Plus Project Phases 1, 2, and 3) on Bear Street at SR-73 NB Ramps, which recommends restriping the existing westbound left-turn lane to provide a shared left/right turn lane. At the time this improvement needs to be implemented, the City would coordinate with Caltrans and an encroachment permit would be obtained as required.

**Response A1.32:** This comment requests continued coordination with Caltrans for any future developments that could potentially impact State transportation facilities. This comment does not provide any concerns or questions regarding the adequacy of the Draft Supplemental EIR. Caltrans District 12 will remain on the mailing list for the Project and will receive notification of availability of the Final Supplemental EIR, in addition to all other public notices for development projects that could potentially impact Caltrans facilities.

**LETTER A2: Orange County Fire Authority, dated August 14, 2023 (3 pages)**

ORANGE COUNTY FIRE AUTHORITY
P. O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602-0125
Brian Fennessy, Fire Chief (714) 573-6000 www.ocfa.org

August 14, 2023

Ali Pezeshkpour,, AICP, Planning Manager
City of Santa Ana
Planning and Building Agency
PO Box 1988 (M-20)
Santa Ana, CA 92702
Email: APezeshkpour@santa-ana.org

Subject: Draft Environmental Impact Report Related Bristol Specific Plan Project

Dear Ali:

Thank you for the opportunity to review the subject document. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services response to 23 cities in Orange County and all unincorporated areas. The OCFA operates 78 fire stations throughout Orange County, Services include: structural fire protection, emergency medical and rescue services, education, and hazardous material response. OCFA also participates in disaster planning as it relates to emergency operations, which includes high occupant areas and school sites and may participate in community disaster drills planned by others. Resources are deployed based upon a regional service delivery system, assigning personnel and equipment to emergency incidents without regard to jurisdictional boundaries. The equipment used by the department has the versatility to respond to both urban and wildland emergency conditions. The following are our comments: **A2.1**

The following corrections should be made to the document: **A2.2**

**DEIR**:Section 4.14 Environmental Settings: Public Services (corrections are underlined and bold)

*As provided by the OCFA 2022 Statistical Annual Report, there were 40,224 calls for service from the 10 fire stations in the City in 2022. Of the calls for service, 56.8 percent (22,835) were for emergency medical calls, 1.8 percent (734) were for fire incidents, and 17.5 percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.*

**Should be corrected to read:**

As provided by the OCFA 2022 Statistical Annual report **OCFA fire stations** responded to **30,604 incidents** resulting in **40,224-unit responses**. Of the calls for service, **75 percent** (22,835) were for emergency medical calls, **2 percent** (734) were for fire incidents, and **23 percent** (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

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Lake Forest • La Palma • Los Alamitos • Mission Viejo • Rancho Santa Margarita •San Clemente • San Juan Capistrano • Santa Ana
Seal Beach • Stanton • Tustin • Villa Park • Westminster • Yorba Linda • and Unincorporated Areas of Orange County

**RESIDENTIAL SPRINKLERS AND SMOKE ALARMS SAVE LIVES**

Related Bristol Specific Plan Project Draft Environmental Report
August 13, 2009
Page 2

**DEIR**:Section 5.11.22 Public Services: Fire Protection Environmental Settings: (corrections are underlined and bold)

**Table 5.11-1: Santa Ana Fire Stations Near the Project Site**

| Fire Station | Location | Distance from Site | Equipment | Staffing |
|---|---|---|---|---|
| Station 76 | 950 West MacArthur Boulevard | 0.5 mile | 1 Paramedic Truck | 1 Fire Captains<br>1 Fire Apparatus Engineers<br>2 Firefighters/Paramedics |
| Station 77 | 2317 South Greenville Street | 2.2 miles | 2 Paramedic Truck | 1 Fire Captains<br>1 Fire Apparatus Engineers<br>2 Firefighters/Paramedics |

A2.3

**Should be corrected to read:**

**Corrected: Table 5.11-1: Santa Ana Fire Stations Near the Project Site**

| Fire Station | Location | Distance from Site | Equipment | Staffing |
|---|---|---|---|---|
| Station 76 | 950 West MacArthur Boulevard | 0.5 mile | 1 Paramedic Truck | <u>3</u> Fire Captains<br><u>3</u> Fire Apparatus Engineers<br><u>6</u> Firefighters/Paramedics |
| Station 77 | 2317 South Greenville Street | 2.2 miles | 2 Paramedic Truck | <u>3</u> Fire Captains<br><u>3</u> Fire Apparatus Engineers<br><u>6</u> Firefighters/Paramedics |

**DEIR**

*As provided by the OCFA 2022 Statistical Annual Report, there were 40,224 calls for service from the 10 fire stations in the City in 2022. Of the calls for service, 56.8 percent (22,835) were for emergency medical calls, 1.8 percent (734) were for fire incidents, and 17.5 percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.*

A2.4

**Should be corrected to read:**

As provided by the OCFA 2022 Statistical Annual report **OCFA fire stations** responded to **30,604 incidents** resulting in **40,224-unit responses**. Of the calls for service, **75 percent** (22,835) were for emergency medical calls, **2 percent** (734) were for fire incidents, and **23 percent** (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

Any project which increases population can potentially increase workload; however, we believe this project will have Less Than Significant Impact with the following Measures:

- The project is subject to review by the City and the OCFA for various construction document plan checks for the applicable fire life safety codes and regulations. The project will be subject to the current editions of the California Building Code (CBC), California Fire Code (CFC), and related codes.
- New water supply shall be public fire hydrants, hydrant spacing shall meet the minimums identified in the codes.
- Fire department access shall be provided all around the buildings.
- It is unlawful to occupy any portions of these buildings until City building department and OCFA have conducted final inspection and sign off.
- Amenity/Sky decks will be considered Assembly occupancies.

A2.5

Thank you for providing us with this information. Please contact me at 714-573-6551 if you have any questions. **A2.6**

Sincerely,

Tamera Rivers,
Management Analyst, Strategic Services
tamyrivers@ocfa.org

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**Response to Comment Letter A2: Orange County Fire Authority**

**Response A2.1:** This comment provides an introduction to the letter from the Orange County Fire Authority (OCFA) and a summary of OCFA's authority. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response A2.2:** In regard to the suggested corrections for the environmental setting for fire services, this paragraph has been revised to reflect the correct response data provided by OCFA, as demonstrated in Chapter 3, *Errata*, of this Final EIR. The revisions are a clarification that does not result in new or substantially more severe impacts and, thus, their addition does not require recirculation of the Draft EIR.

**Response A2.3:** In regard to the suggested corrections for the environmental setting for fire services, Table 5.11-1 has been revised to reflect the correct staffing data provided by OCFA, as demonstrated in Chapter 3, *Errata*, of this Final EIR. The revisions are a clarification that does not result in new or substantially more severe impacts and, thus, their addition does not require recirculation of the Draft EIR.

**Response A2.4:** In regard to the suggested corrections for the environmental setting for fire services, this paragraph has been revised to reflect the correct response data provided by OCFA, as demonstrated in Chapter 3, *Errata*, of this Final EIR. The revisions are a clarification that does not result in new or substantially more severe impacts and, thus, their addition does not require recirculation of the Draft EIR.

**Response A2.5:** The City concurs with OCFA that any project in the City which increases residential population can potentially increase workload; however, this Project would not require provision of new or physically altered fire facilities and impacts would be less than significant. Regarding the applicable measures listed by OCFA, future implementing developments within the Related Bristol Specific Plan would be routed through the City's administrative Development Project Review process prior to their approval, which would include review by OCFA for consistency with current editions of the California Building Code and California Fire Code. Furthermore, as described on page 5.11-6 of the Draft Supplemental EIR, future developments would be required to be developed consistent with OCFA Fire Prevention Guideline B-09, which requires the provision of Fire Master Plans for Commercial and Residential Development. Future projects would adhere to existing regulations for adequate emergency access, such as access to and around structures, as well as requirements for hydrants (including hydrant spacing) and amenity areas. In addition, the future development would be subject to review by the City and the OCFA for various construction document plan checks for the applicable fire life safety codes and regulations. Further, fire department access shall be provided all around the buildings. Finally, it would be unlawful to occupy any portions of future buildings until the City Building and Safety Division and OCFA have conducted final inspection and sign off.

**Response A2.6:** This comment provides thanks for the opportunity to comment and contact information should there be any questions related to the OCFA. The comment is conclusionary in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

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**LETTER A3: Orange County Airport Land Use Commission, dated August 16, 2023 (2 pages)**

AIRPORT LAND USE COMMISSION
FOR ORANGE COUNTY
3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

August 16, 2023

Ali Pezeshkpour, Planning Manager
City of Santa Ana Planning and Building Agency
P.O. Box 1988, M-20
Santa Ana, CA 92702

**Subject: Comments on the Notice of Availability of Draft Supplemental Environmental Impact Report (EIR) for Related Bristol Specific Plan Project**

Dear Mr. Pezeshkpour:

Thank you for the opportunity to review the Notice of Availability (NOA) for the Draft Supplemental EIR (DSEIR) for Related Bristol Specific Plan Project in the context of the *Airport Environs Land Use Plan for John Wayne Airport (AELUP for JWA)*. We wish to offer the following comments for your consideration as you proceed with your Supplemental EIR.

**A3.1**

The proposed project consists of a 41.1-acre site approximately 1.5 miles northwest of John Wayne Airport. The proposed mixed-use development would allow for up to 3,750 multi-family residential units; up to 350,000 square feet of commercial uses; a hotel with up to 250 rooms; a senior living continuum of care use with up to 200 units; and approximately 13.1 acres of parks, pedestrian paseos and common open space.

The proposed project area is located within the Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 77 Horizontal Obstruction Imaginary Surface for JWA which would be penetrated at 206' above mean sea level (AMSL). The airspace above 206' AMSL is reserved for air navigation. As discussed in the DSEIR, the Specific Plan would allow buildings up to 25 stories and/or 285 feet in height and therefore would penetrate the horizontal surface and enter airspace reserved for air navigation. Table 5.8-2 in Section 5.8 (Land Use and Planning) of the DSEIR discusses consistency with John Wayne Airport plan policies, however, the DSEIR does not discuss or analyze the proposed project's location within the FAA FAR Part 77 Horizontal Obstruction Imaginary Surface for JWA.

**A3.2**

In Section 2.1.3 of the *AELUP for JWA*, the Commission has incorporated the standards for height limits for determining obstructions and has incorporated the definitions of

**A3.3**

"imaginary surfaces" for airports as defined in the FAA FAR Part 77. The "imaginary surfaces" are defined by means of elevations heights and slopes in relation to individual airports, the spaces above which are reserved for air navigation. To ensure the safe operation of aircraft activity at JWA, structures anywhere in the JWA airport planning area should not exceed the applicable elevations defined in FAR Part 77 (Objects Affecting Navigable Air Space). **A3.3 cont.**

At the ALUC meeting held on July 20, 2023, the Commission found the proposed Related Bristol Specific Plan inconsistent with the *AELUP for JWA* per Section 3.2.1 which states that "within the boundaries of the AELUP, any land use may be found to be inconsistent with the AELUP which… permits structures of excessive heights in areas which would affect adversely the continued operation of the airport; or permits activities or facilities that would affect adversely aeronautical operations." **A3.4**

We recommend that the DSEIR include a discussion of the project's location within the Horizontal Obstruction Imaginary Surface for JWA and further evaluate the proposed project's consistency with AELUP policies 3.2.1, 3.2.6, and 3.2.7 based on the project's potential to penetrate the horizontal obstruction imaginary surface. Related to Policy 3.2.1, the DSEIR states that the structure heights would not affect airport operations. For Policy 3.2.6, the DSEIR discusses the JWA notification surface but not the obstruction imaginary surfaces for JWA. With respect to AELUP Policy 3.2.7, Table 5.8-2 of the DSEIR currently states that the proposed project is not located within an area, and would not extend into areas, that would adversely affect the SNA operations or result in a hazard. **A3.5**

Thank you again for the opportunity to comment on the DSEIR for Related Bristol Specific Plan Project. Please contact our office at (949) 252-5170 or via email at alucinfo@ocair.com should you have any questions related to the Airport Land Use Commission for Orange County. **A3.6**

Sincerely,

Lea U. Choum

Lea U. Choum
Executive Officer

cc: Airport Land Use Commissioners

**Response to Comment Letter A3: Orange County Airport Land Use Commission**

**Response A3.1:** This comment provides an introduction to the letter from the Orange County Airport Land Use Commission (ALUC) and describes the proposed Project. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response A3.2:** In regard to the John Wayne Airport (SNA) Horizontal Obstruction Imaginary Surface being penetrated, the Draft Supplemental EIR provides a comprehensive discussion related to the FAA FAR Part 77 Horizontal Obstruction Imaginary Surface for SNA. In Section 5.6, *Hazards and Hazardous Materials,* on page 5.6-3, it is described that FAA FAR Section 77.17 (Obstruction Standards) states that an object could be an obstruction to air navigation if it is higher than 200 feet above ground level or the 100:1 imaginary surface and therefore, requires notification to FAA (per FAR Part 77). As detailed on page 5.6-7, the Orange County AELUP states that an object that would be constructed within the height restriction or imaginary surface area of the airport is not necessarily incompatible but would be subject to FAA notification and an FAA aeronautical study to determine whether the proposed structures would constitute a hazard to air navigation or would affect the operation of the airport.

On page 5.6-12 of the Draft Supplemental EIR it is described that the Project site is located within the 206-foot-high imaginary surface area for SNA, which is shown on Figure 5.6-4; and therefore, FAA notification for the proposed Project would be required. Draft Supplemental EIR Figure 5.6-4 identifies the South Bristol Street Focus Area and the Project site's location within the SNA Horizontal Surface Elevation of 206 feet AMSL. This information is also provided in Section 5.8, *Land Use and Planning*, on page 5.8-18 within the discussion of height restrictions.

Page 5.6-27 of the Draft Supplemental EIR states that the tallest point on the buildings would be approximately 285 feet above the existing ground level, which is approximately 30 feet above sea level. Thus, the top of the tallest point on the buildings would be approximately 315 feet above sea level. It is further described that because the Project site is located 1.4 miles northwest of SNA and is not within the Airport's safety zone, the proposed Project would not result in a safety hazard. However, as shown on Figure 5.6-1, the Project site is located within the 206-foot-high imaginary surface area for SNA, and the proposed Project may include structures of 25 stories that would extend to approximately 315 feet above sea level. Therefore, FAA notification and study of the proposed Project structures above 206-feet high is required.

The comment refers to Draft Supplemental EIR Table 5.8-2 in Section 5.8, *Land Use and Planning*. On pages 5.8-24 and 5.8-25, Table 5.8-2 details that the tallest point on the buildings would be 285-feet from ground level requiring FAA's notification and would not adversely affect aeronautical operations with compliance with AELUP and FAR Part 77 requirements, which includes an FAA aeronautical study to ensure that proposed structures would not constitute a hazard to air navigation. Additionally, the following table in Section 5.8, *Land Use and Planning* (Table 5.8-3), describes Project requirements related to FAR Part 77 Imaginary Obstruction Surfaces and the required determination by the FAA that proposed structures pose "no hazard" to air aviation. The discussion further details that the proposed Project would comply with this ALUC notification and all other applicable rules and regulations as they pertain to SNA and airport safety. Thus, the Draft Supplemental EIR does discuss and analyze the Project's location within the FAA FAR Part 77 Horizontal Obstruction Imaginary Surface for SNA and the EIR determined that Project-related hazard impacts associated with airport operations would be less than significant with compliance with existing regulations.

**Response A3.3:** Regarding Section 2.1.2 of the AELUP for SNA, Section 2.1.3 of the AELUP for SNA states that in addition to the "imaginary surfaces," the Commission will use all of the FAR Part 77.23 standards along with the results of FAA aeronautical studies, or other studies deemed necessary by the Commission, in order to determine if a structure is an "obstruction." The FAA uses the 100:1 notification surface to help

identify projects that may interfere with airport operations. A project exceeding the 100:1 notification surface is not necessarily incompatible or an obstruction, but rather requires that the FAA be notified, so they can conduct an aeronautical study.

This is described in the Draft Supplemental EIR on page 5.6-7, and details that the Orange County AELUP states that an object that would be constructed within the height restriction or imaginary surface area of the airport is not necessarily incompatible but would be subject to FAA notification and an FAA aeronautical study to determine whether the proposed structures would constitute a hazard to air navigation. The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR.

**Response A3.4:** Regarding the decision by ALUC that the Project is inconsistent with Section 3.2.1 of the AELUP, the proposed Project would not adversely affect the continued operation of the airport. As described in Response A3.2, any structure that penetrates the Obstruction Imaginary Surface for SNA is subject to an FAA aeronautical study per FAR Part 77 regulations. Also, it should be noted that the project site is located outside of both the Medium and Short General Aviation Runway Safety Compatibility Zones for John Wayne Airport. Finally, as noted in the Draft Supplemental EIR, the project would not result in hazards related to excessive glare, light, steam, smoke, dust, or electronic interference. The comment is related to the height of the proposed structures and does not raise a specific issue with the adequacy of the Draft Supplemental EIR.

**Response A3.5:** Regarding the recommendation from ALUC for a discussion of the Project's location within the Horizontal Obstruction Imaginary Surface for SNA and an evaluation of the Project's consistency with AELUP Policies 3.2.1, 3.2.6, and 3.2.7, the commenter is referred to Response A3.2, which provides a summary of the Draft Supplemental EIR's discussion of the Project's location within the Horizontal Obstruction Imaginary Surface for SNA. Draft Supplemental EIR Section 5.8, *Land Use and Planning,* Table 5.8-2 (pages 5.8-23 through 5.8-25) provides an evaluation of the Project's consistency with AELUP Policies 3.2.1, 3.2.6, and 3.2.7 based on the potential to penetrate the Horizontal Obstruction Imaginary Surface. Table 5.8-2 describes that the tallest point on the proposed buildings would be 285 feet above the existing ground level, which would require compliance with FAA FAR Part 77 regulations (including those related to the Horizontal Obstruction Imaginary Surface for SNA) that would be ensured through the City's development review and permitting process. These FAR Part 77 regulations include an FAA aeronautical study to ensure that proposed structures would not constitute a hazard to air navigation or otherwise affect the operation of the airport.

**Response A3.6:** This comment provides thanks for the opportunity to comment and contact information should there be any questions related to the ALUC. The comment is conclusionary in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**LETTER O1: Lozeau Drury LLP on behalf of Supporters Alliance for Environmental Responsibility, received August 16, 2023 (1 page)**

LOZEAU DRURY

August 16, 2023

**VIA EMAIL**

Ali Pezeshkpour, AICP, Planning Manager
City of Santa Ana Planning and Building Agency
PO BOX 1988 (M-20)
Santa Ana, CA 92702
apezeshkpour@santa-ana.org

**Re: Comment on Draft Environmental Impact Report for Related Bristol Specific Plan Project (SCH 2020029087)**

Dear Mr. Pezeshkpour:

This comment is submitted on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Draft Environmental Impact Report ("DEIR") prepared for the Related Bristol Specific Plan Project (SCH 2020029087), which proposes the demolition of an existing shopping center and related infrastructure, and the construction of a mixed-use development with up to 3,750 multi-family residential units, up to 350,000 square feet of commercial uses, a hotel with up to 250 rooms, and a senior living development with up to 200 units, located on a 41.1-acre site at 3600 South Bristol Street, in the City of Santa Ana ("Project"). O1.1

SAFER is concerned that the DEIR fails as an informational document, fails to analyze all of the Project's significant impacts, and fails to impose all feasible mitigation measures to reduce the Project's impacts. SAFER requests that the Planning and Building Agency address these shortcomings in a revised draft environmental impact report and recirculate the revised DEIR prior to considering approvals for the Project. O1.2

SAFER reserves the right to supplement these comments during the administrative process. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997). O1.3

Sincerely,

Rebecca Davis
Lozeau Drury LLP

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**Response to Comment Letter O1: Lozeau Drury LLP on behalf of Supporters Alliance for Environmental Responsibility**

**Response O1.1:** This comment provides an introduction to the letter from Lozeau Drury LLP on behalf of the Supporters Alliance for Environmental Responsibility (SAFER) and provides a summary of the Project description. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O1.2:** This comment asserts that the Draft Supplemental EIR fails as an informational document by failing to analyze all of the Project's significant impacts and imposing all feasible mitigation measures. However, the comment does not provide substantial evidence of a significant environmental impact or the need to recirculate the Draft Supplemental EIR. A general response to a general comment is sufficient. (*Browning-Ferris Indus. v. City Council* (1986) 181 Cal.App.3d 852, 862.) The City disagrees with the commenter's assertion. The Draft Supplemental provides an accurate and thorough analysis of all of the Project's potential environmental impacts pursuant to CEQA. As discussed throughout the Draft Supplemental EIR, mitigation measures would be required for impacts related to air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources as these impact areas are potentially significant after the imposition of existing regulations and standards conditions. For other impact areas, the Draft Supplemental EIR details that there is no nexus requiring mitigation pursuant to CEQA Guidelines Section 15126.4, subd. (a)(4)(A)-(B), as impacts would be less than significant.

No conditions exist that would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate or conclusory in nature.

**Response O1.3:** This comment asserts the right for the commenter to supplement these comments during the administrative process. The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

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**LETTER O2: Orange County Professional Firefighters Association IAFF Local 3631, received August 17, 2023 (1 page)**

**ORANGE COUNTY**
**PROFESSIONAL FIREFIGHTERS ASSOCIATION**
**IAFF LOCAL 3631**
1342 Bell Avenue, Suite 3A, Tustin, CA 92780
Office: (949) 486-3631 • Fax: (949) 486-3636 • Website: www.ocfirefighters.org



August 17, 2023

To whom it may concern,

This letter serves as a comment for the CEQA process for the 3600 Bristol Street Project in the City of Santa Ana. O2.1

A project consisting of forty-two acres and over four thousand residential units will have a substantial impact on fire and EMS services in the city and on future residents of this project. While response times show that the closest stations are either at or just above response standards, that only considers units responding to the curb of the given location. When approving a development of this scope and size, the amount of time it takes an effective firefighting force to climb multiple flights of stairs must be accounted for. Every floor above grade increases the amount of time it takes an effective firefighting force to get to the fire floor. This delay in response necessitates additional resources that are placed within in closer proximity to a project of this magnitude. Given the increased response time to get firefighters and paramedics to the furthest reaches of this project, Orange County Professional Firefighters L3631 recommends a new fire station located at the development site and the addition of a four-person engine company or an equivalent mitigation to ensure the continued safety of the residents of Santa Ana. O2.2

If you have any questions, you can reach out to me at 714-558-6200. O2.3

Thank you for your commitment to public safety,

Chris Hamm, President
OC Firefighters
IAFF Local 3631

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**Response to Comment Letter O2: Orange County Professional Firefighters Association IAFF Local 3631**

**Response O2.1:** This comment provides an introduction to the letter regarding the Project from the Orange County Professional Firefighters Association IAFF Local 3631. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O2.2:** This comment does not provide substantial evidence of the asserted impact and does not comment on the adequacy of the Draft Supplemental EIR evaluation of fire protection services.

The comment letter raises the issue of three-dimensional emergency response (access to floors above the ground level) which is not a part of the Orange County Fire Authority's (OCFA) Standards of Coverage (deployment) criteria. In general, OCFA fire station service areas are approximately two miles in all directions from a fire station. This can change with topography and infrastructure impacts. As detailed in Section 3.0, *Project Description*, of the Draft Supplemental EIR, the proposed Project site is 41.3-acres, and the proposed Project includes a maximum of 3,750 residential units; not over 4,000. Section 5.11, *Public Services*, of the Draft Supplemental EIR, describes that there are currently 6 City-owned fire stations within approximately 4 miles of the Project site. The closest is 0.5 mile from the Project site (Station 76) and had a 90th percentile response time of 8:11 minutes in 2022, which meets (is better than) the OCFA standard of 90th percentile response time of 8:30 minutes. The first due area of the closest fire station (Station 76) already has several high-rise buildings within two miles of the fire station. Page 5.11-3 of the Draft Supplemental EIR describes that 2 percent of calls for service were for fire incidents in 2022. As the Project would be required to meet the California Fire Code is Title 24, Part 9 of the California Code of Regulations, as included in the Santa Ana Municipal Code Chapter 14, which would be ensured through the City's development permitting process, fire hazards that would require a firefighting force to climb multiple flights of stairs would have a limited potential to occur.

Further, Fire Station 76, the nearest fire station, is well within the five minutes of travel time set in the OCFA Standards of Coverage. At average travel speeds of 25 mph, five minutes of travel time would allow the apparatus to travel 2.08 miles or twice the maximum distance to any point in the Project site. Even at an average travel speed of 15 mph, the first due fire apparatus would be capable of traveling to any part of the Project site in less than five minutes. This exceeds the first-due unit requirements established by OCFA.

Given the proximity of the closest fire station, it will provide up to three additional minutes to access the upper floors of the Project site. In buildings over 75 feet in height, elevators can be captured by firefighters to gain quicker access to the upper floors when needed. Many of the larger structures in the Project site will have upgraded fire resistive construction due to their size and height, making them capable of holding a fire in check for a longer period of time. This increased construction along with automatic fire sprinklers in every dwelling unit and all large buildings coupled with enhanced fire control systems required of high-rise buildings (any structure with a habitable floor higher than 75 feet) are required due to the fact that it takes longer to get to an incident on the upper floors of a building.

In addition, the Draft Supplemental EIR describes on page 5.11-2, that the City has a specific Fire Facilities Fee in Municipal Code Chapter 8-46 that is levied against proposed buildings over two stories in height to provide for unique firefighting equipment and fire station configurations. The purpose of the fire facilities fee is to provide revenue to pay for equipment needed to fight fires in buildings over two stories in height and to improve fire stations in the city as necessary to accommodate such equipment and otherwise augment the City's capability to fight fires in such buildings. All fire facility fee revenues are required to be deposited in an account separate and apart from other City revenues and may be expended solely to pay for the cost of the facilities identified in Chapter 8-46 of the Municipal Code. Also, page 5.11-6 of the Draft Supplemental EIR describes that OCFA Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development, includes regulations for adequate emergency access, such as access to and

around structures would meet OCFA and California Fire Code requirements that include high rise provisions for buildings over 75 feet high that would be verified through the City's development review and permitting process that would provide efficiency for fire teams to get to the furthest reaches of the Project.

Overall, as detailed within the Draft Supplemental EIR, with 6 existing fire stations within approximately 4 miles of the Project site, and the closest 0.5 mile from the site that is operating within the OCFA standards, the EIR determined that there are adequate nearby fire facilities to serve the proposed Project in addition to the existing service needs of the area; and construction of a new or expanded fire station would not be required. While the Project could result in an increased workload, OCFA will continue to evaluate workload for each Station on an ongoing basis. Further, as discussed in Letter A2, OCFA has reviewed the Project and Draft Supplemental EIR and has determined that additional resources are not necessary at this time, but they will continue to monitor the Station as the Project is developed and occupied. In addition, revenue provided by fire facility fees would provide for expanded fire protection and emergency medical staffing and equipment to supplement existing fire services. The comment does not provide evidence or any service nexus to substantiate the need for a new onsite fire station with a four-person engine company, or an equivalent mitigation.

**Response O2.3:** This comment provides a contact phone number for any questions regarding the letter. The comment in conclusory in nature does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided. This letter will be forwarded to City decision makers as part of the Final Supplemental EIR.

**LETTER O3: Mitchell M. Tsai on behalf of Southwest Carpenters "SWMSRCC", received August 18, 2023 (273 pages)**

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**Mitchell M. Tsai**
Attorney At Law

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

**VIA E-MAIL**

August 18, 2023

Ali Pezeshkpour, AICP, Planning Manager
City of Santa Ana
P.O. Box 1988 (M-20)
Santa Ana, CA 92702
Em: Apezeshkpour@santa-ana.org

**RE: City of Santa Ana's Related Bristol Specific Plan Project.**

Dear Ali Pezeshkpour and City of Santa Ana,

On behalf of the Southwest Mountain States Regional Council of Carpenters ("**Southwest Carpenters**" or "**SWMSRCC**"), my Office is submitting these comments for the City of Santa Ana's ("**City**") Draft Environmental Impact Report ("**DEIR**") for the Related Bristol Specific Plan ("**Project**").

The Project proposes to demolish the 16 existing buildings and remove all existing improvements, landscaping, and pavement, and to construct a 3-phase mixed-use development that would include up to 3,750 multi-family residential units, up to 200 units of senior living/continuum of care use, a 250-room hotel, and up to 350,000 square feet (SF) of commercial uses. DEIR at 1-3.

O3.1

The Southwest Carpenters is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Individual members of the Southwest Carpenters live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

The Southwest Carpenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-

1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

The Southwest Carpenters incorporates by reference all comments raising issues regarding the Environmental Impact Report (EIR) submitted prior to certification of the EIR for the Project. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties). O3.1 cont.

## I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built using a local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program, or who are registered apprentices in a state-approved apprenticeship training program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note: O3.2

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded: O3.3

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

O3.3 Cont.

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

O3.3 Cont.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts.

## II. THE CITY SHOULD IMPOSE TRAINING REQUIREMENTS FOR THE PROJECT'S CONSTRUCTION ACTIVITIES TO PREVENT COMMUNITY SPREAD OF COVID-19 AND OTHER INFECTIOUS DISEASES

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.[5]

O3.4

72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

[5] Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx.

Southwest Carpenters recommend that the City adopt additional requirements to mitigate public health risks from the Project's construction activities. Southwest Carpenters requests that the City require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon Southwest Carpenters' experience with safe construction site work practices, Southwest Carpenters recommends that the City require that while construction activities are being conducted at the Project Site:

**Construction Site Design:**

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- The perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area. Please reference the Apex temperature screening site map for additional details.
- There will be clear signage posted at the project site directing you through temperature screening.
- Provide hand washing stations throughout the construction site.

**Testing Procedures:**

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.

O3.4 Cont.

- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at both entrances from 5:30 am to 7:30 am.; main gate [ZONE 1] and personnel gate [ZONE 2]
- After 7:30 am only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, DHS will instruct the individual that he/she will not be allowed to enter the Project Site. DHS will also instruct the individual to promptly notify his/her supervisor and his/her human resources (HR) representative and provide them with a copy of Annex A.

O3.4 Cont.

**Planning**

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches)

> communication and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health or applicable local public health agencies.[6]

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. The Agency should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site. O3.4 Cont.

Southwest Carpenters has also developed a rigorous Infection Control Risk Assessment ("**ICRA**") training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction projects in healthcare environments.[7]

ICRA protocols are intended to contain pathogens, control airflow, and protect patients during the construction, maintenance and renovation of healthcare facilities. ICRA protocols prevent cross contamination, minimizing the risk of secondary infections in patients at hospital facilities.

The City should require the Project to be built using a workforce trained in ICRA protocols.

## III. THE CITY MUST REVISE THE DEIR FOR THE PROJECT

CEQA is a California statute designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of O3.5

[6] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, *available at* https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

[7] For details concerning Southwest Carpenters's ICRA training program, *see* https://icrahealthcare.com/.

Regulations ("**CEQA Guidelines**") § 15002(a)(1).[8] At its core, "[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report ("**EIR**") for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80. The EIR requirement "is the heart of CEQA." CEQA Guidelines, § 15003(a).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449–450).

**O3.5 Cont.**

Section 15088.5(a) of the CEQA Guidelines provides that an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant

[8] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

environmental impacts of the project which the project proponents decline to adopt. *Id.*

Additionally, an EIR must be recirculated when it is so fundamentally inadequate and conclusory in nature that meaningful public review and comment is precluded. *Id.* [citing *Mountain Lion Coalition v. Fish & Game Com.* (1989) 214 Cal.App.3d 1043]. O3.5 Cont.

Here, as discussed below, the DEIR fails to substantiate all of its conclusions to allow meaningful public review and comment, provide adequate mitigation measures, and fully assess all pertinent environmental factors. Accordingly, this comment letter discloses significant new information, necessitating revision and recirculation of the DEIR.

A. The DEIR's Project Description Omits Essential Information

"An accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR". *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 730. Jurisprudence establishes that a project description is insufficient where the project objectives listed therein are unduly narrow, thereby precluding potential mitigation or a reasonable range of alternatives. *We Advocate Through Environmental Review v. County of Siskiyou* (2022) 78 Cal.App.5th 683, 692. O3.6

So is the case here where the DEIR provides that the Project will be implemented in three phases, slated to begin in 2026 and end in 2036. DEIR at 3-15. However, the DEIR fails to specify when each phase will begin and end and how long each phase is expected to last. Given that the phases have distinct locations and will therefore affect different nearby residences and business, such information is crucial in assessing and quantifying the Project's impacts. On these grounds alone, the DEIR must be revised and recirculated.

B. The EIR's Alternatives Are Legally Inadequate

An EIR must discuss a reasonable range of alternatives to the project, which "shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." CEQA Guidelines § 15126.6(a)&(c). "[T]he discussion of alternatives shall focus on alternatives.... which are capable of avoiding or substantially lessening any significant effects of the project...." CEQA Guidelines § 15126.6(b). Further, an EIR is legally inadequate if it contains an overly narrow range of alternatives. *Watsonville Pilots Ass'n* O3.7

*v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1087, 20190 [not considering a reduced development alternative was error].

Here, the DEIR considered a (1) no project alternative; (2) a reduced project alternative; and (3) a buildout of the existing zone alternative. DEIR at 6-32. However, the DEIR notes that both build alternatives it considered would continue to result in similarly significant, or even greater, air quality, noise, cultural resources, geology & soils, hazardous material, park and recreation, population and housing, transportation, and land use impacts. *Id.*

The DEIR's failure to provide a build alternative with less than significant park and recreation impacts is particularly disconcerting given that "the City of Santa Ana is currently parkland deficient and is not meeting the GPU policy of 3 acres per 1,000 residents" and that "with buildout of the GPU, the existing parkland deficiency is expected to increase as additional residential units are constructed with limited parkland increases." *Id.* at 5.12-7. Accordingly, the DEIR fails to consider a reasonable range of alternatives which could eliminate or reduce the Project's significant impacts, as required. The DEIR must be revised to specifically consider an alternative which reduces the Project's significant and unavoidable parkland and air quality impacts.

O3.7 Cont.

C. The EIR Improperly Defers its Air Quality Mitigation Measures

If a project has a significant effect on the environment, an agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns". CEQA Guidelines § 15092(b)(2)(A–B).

CEQA mitigation measures proposed and adopted are required to describe what actions will be taken to reduce or avoid an environmental impact. (CEQA Guidelines § 15126.4(a)(1)(B) [providing "[f]ormulation of mitigation measures should not be deferred until some future time."].) While the same Guidelines section 15126.5(a)(1)(B) acknowledges an exception to the rule against deferrals, such exception is narrowly proscribed to situations where it is impractical or infeasible to include those details during the project's environmental review.

O3.8

Here, the EIR finds that the Project will result in significant and unavoidable air quality impacts because "the proposed Project would lead to increased regional air quality

operational emissions that would exceed thresholds." DEIR at 5.1-24. Therefore, in order to partially mitigate such impacts, the DEIR imposes several mitigation measures. However, such impacts are improperly deferred.

For example, MM-AQ-1 requires "preparation of a construction traffic control plan detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic." DEIR at 5.1-47. However, it appears that such plan has not yet been prepared.. Likewise, Mitigation Measure AQ-3 requires that a Commute Trip Reduction (CTR)/ Transportation Demand Management (TDM) plan be prepared to reduce mobile GHG emissions but specifies that such preparation will take place only "prior to the issuance of building permits". DEIR at 5.1-48. O3.8

Absent any specification why formulation of the measures are not feasible at this time, the DEIR's measure are improperly deferred and its conclusion that impacts "would be less than significant with implementation of mitigation" cannot stand. *Id.* at 5.1-49.

D. The DEIR's Hazardous Material Findings and Analysis Are Insufficient

CEQA requires that an EIR identify and discuss the significant effects of a Project, how those significant effects can be mitigated or avoided. CEQA Guidelines § 15126.2; PRC §§ 21100(b)(1), 21002.1(a). If a project has a significant effect on the environment, an agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns". CEQA Guidelines § 15092(b)(2)(A–B). Such findings must be supported by substantial evidence. CEQA Guidelines § 15091(b). The DEIR at hand fails to comply with these requirements. O3.9

Specifically, the DEIR notes that "it is anticipated that some of the existing buildings on the Project site contain [asbestos-containing materials ("ACMs")]" and that "[d]ue to the age of the onsite buildings, it is possible that lead-based paint and other lead containing materials are present in some of the buildings on the Project site." DEIR at 5.6-11. Moreover, the DEIR provides that "soil within portions of the Project site exhibits concentrations of [hazardous chemicals] that exceed residential screening levels." *Id.* at 5.6-22.

Nevertheless, despite these concerns, the DEIR fails to analyze the public health risks to construction workers stemming from exposure to hazards while demolishing the existing buildings and conducting grading and earthwork. Instead, the DEIR merely provides that "asbestos surveys and abatement of ACMs and lead-based paint would be required prior to demolition or renovation of the existing building" and that mitigation measures "would be implemented to reduce the potential risks related to accidental release and exposure of people and the environment to the contaminated soils." *Id.* Thus, the DEIR fails to support its less than significant findings with substantial evidence and must be revised to conduct Project-specific analysis quantifying the hazardous material exposure risks to construction workers before speculating that they are less than significant.

O3.9 Cont.

E. The DEIR Fails to Support its Findings on Land Use with Substantial Evidence

Each California city and county must adopt a comprehensive, long-term general plan governing development. *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 352, citing Gov. Code §§ 65030, 65300. The general plan sits at the top of the land use planning hierarchy, and serves as a "constitution" or "charter" for all future development. *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773; *Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540.

General plan consistency is "the linchpin of California's land use and development laws; it is the principle which infused the concept of planned growth with the force of law." *Debottari v. Norco City Council* (1985) 171 Cal.App.3d 1204, 1213. It is well established that development projects may not be approved if they interfere with, or frustrate, the general plan's policies and objectives. *See Napa Citizens*, 91 Cal.App.4th at 378-79; *see also Lesher*, 52 Cal.3d at 544.

O3.10

Here, the DEIR fails to analyze the consistency of the Project's requested entitlements with the General Plan. Specifically, the Project requires a zoning map amendment to change the zoning of the Project site from Regional Commercial (CR) and General Commercial (C-2) to Related Bristol Specific Plan District; a subdivision Map; and adoption of the Specific Plan. DEIR at 3-35. However, the DEIR merely makes a conclusory statement that "the proposed Project would change the site from a partially underutilized shopping center to a residential and commercial mixed-use community with open space and gathering spaces . . .The proposed Project would result in the generation of a new community that would be consistent with the surrounding

commercial and multi-family residential uses." DEIR at 5.8-20. Without conducting consistency analysis of the Project's entitlements, the DEIR's less than significant finding is unsupported. For this reason too, the DEIR must be revised and recirculated. O3.10 Cont.

## IV. CONCLUSION

In sum, SMSWRCC requests that the City require a local workforce, that the City impose training requirements for the Project's construction activities to prevent community spread of COVID-19 and other infectious diseases, and that the City revise and recirculate the DEIR for the Project to address the aforementioned concerns. If the City has any questions, feel free to contact my Office. O3.11

Sincerely,

Talia Nimmer
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

**EXHIBIT A**

**SWAPE** Technical Consultation, Data Analysis and Litigation Support for the Environment

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March 8, 2021

Mitchell M. Tsai
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**Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling**

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts. O3.12

## Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2] O3.13

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

O3.13 Cont.

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

## Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

O3.14

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

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number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

**Worker Trip Length by Air Basin**

| Air Basin | Rural (miles) | Urban (miles) |
|---|---|---|
| Great Basin Valleys | 16.8 | 10.8 |
| Lake County | 16.8 | 10.8 |
| Lake Tahoe | 16.8 | 10.8 |
| Mojave Desert | 16.8 | 10.8 |
| Mountain Counties | 16.8 | 10.8 |
| North Central Coast | 17.1 | 12.3 |
| North Coast | 16.8 | 10.8 |
| Northeast Plateau | 16.8 | 10.8 |
| Sacramento Valley | 16.8 | 10.8 |
| Salton Sea | 14.6 | 11 |
| San Diego | 16.8 | 10.8 |
| San Francisco Bay Area | 10.8 | 10.8 |
| San Joaquin Valley | 16.8 | 10.8 |
| South Central Coast | 16.8 | 10.8 |
| South Coast | 19.8 | 14.7 |
| **Average** | **16.47** | **11.17** |
| **Minimum** | **10.80** | **10.80** |
| **Maximum** | **19.80** | **14.70** |
| **Range** | **9.00** | **3.90** |

**O3.14 Cont.**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

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As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

O3.14 cont.

### Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

O3.15

| Local Hire Provision Net Change | |
|---|---|
| **Without Local Hire Provision** | |
| Total Construction GHG Emissions (MT $CO_2e$) | 3,623 |
| Amortized Construction GHG Emissions (MT $CO_2e$/year) | 120.77 |
| **With Local Hire Provision** | |
| Total Construction GHG Emissions (MT CO2e) | 3,024 |
| Amortized Construction GHG Emissions (MT $CO_2e$/year) | 100.80 |
| ***% Decrease in Construction-related GHG Emissions*** | ***17%*** |

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

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Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

**O3.15 Cont.**

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A

| Location Type | Location Name | Rural H-W (miles) | Urban H-W (miles) |
|---|---|---|---|
| Air Basin | Great Basin | 16.8 | 10.8 |
| Air Basin | Lake County | 16.8 | 10.8 |
| Air Basin | Lake Tahoe | 16.8 | 10.8 |
| Air Basin | Mojave Desert | 16.8 | 10.8 |
| Air Basin | Mountain | 16.8 | 10.8 |
| Air Basin | North Central | 17.1 | 12.3 |
| Air Basin | North Coast | 16.8 | 10.8 |
| Air Basin | Northeast | 16.8 | 10.8 |
| Air Basin | Sacramento | 16.8 | 10.8 |
| Air Basin | Salton Sea | 14.6 | 11 |
| Air Basin | San Diego | 16.8 | 10.8 |
| Air Basin | San Francisco | 10.8 | 10.8 |
| Air Basin | San Joaquin | 16.8 | 10.8 |
| Air Basin | South Central | 16.8 | 10.8 |
| Air Basin | South Coast | 19.8 | 14.7 |
| Air District | Amador County | 16.8 | 10.8 |
| Air District | Antelope Valley | 16.8 | 10.8 |
| Air District | Bay Area AQMD | 10.8 | 10.8 |
| Air District | Butte County | 12.54 | 12.54 |
| Air District | Calaveras | 16.8 | 10.8 |
| Air District | Colusa County | 16.8 | 10.8 |
| Air District | El Dorado | 16.8 | 10.8 |
| Air District | Feather River | 16.8 | 10.8 |
| Air District | Glenn County | 16.8 | 10.8 |
| Air District | Great Basin | 16.8 | 10.8 |
| Air District | Imperial County | 10.2 | 7.3 |
| Air District | Kern County | 16.8 | 10.8 |
| Air District | Lake County | 16.8 | 10.8 |
| Air District | Lassen County | 16.8 | 10.8 |
| Air District | Mariposa | 16.8 | 10.8 |
| Air District | Mendocino | 16.8 | 10.8 |
| Air District | Modoc County | 16.8 | 10.8 |
| Air District | Mojave Desert | 16.8 | 10.8 |
| Air District | Monterey Bay | 16.8 | 10.8 |
| Air District | North Coast | 16.8 | 10.8 |
| Air District | Northern Sierra | 16.8 | 10.8 |
| Air District | Northern | 16.8 | 10.8 |
| Air District | Placer County | 16.8 | 10.8 |
| Air District | Sacramento | 15 | 10 |

| | | | |
|---|---|---|---|
| Air District | San Diego | 16.8 | 10.8 |
| Air District | San Joaquin | 16.8 | 10.8 |
| Air District | San Luis Obispo | 13 | 13 |
| Air District | Santa Barbara | 8.3 | 8.3 |
| Air District | Shasta County | 16.8 | 10.8 |
| Air District | Siskiyou County | 16.8 | 10.8 |
| Air District | South Coast | 19.8 | 14.7 |
| Air District | Tehama County | 16.8 | 10.8 |
| Air District | Tuolumne | 16.8 | 10.8 |
| Air District | Ventura County | 16.8 | 10.8 |
| Air District | Yolo/Solano | 15 | 10 |
| County | Alameda | 10.8 | 10.8 |
| County | Alpine | 16.8 | 10.8 |
| County | Amador | 16.8 | 10.8 |
| County | Butte | 12.54 | 12.54 |
| County | Calaveras | 16.8 | 10.8 |
| County | Colusa | 16.8 | 10.8 |
| County | Contra Costa | 10.8 | 10.8 |
| County | Del Norte | 16.8 | 10.8 |
| County | El Dorado-Lake | 16.8 | 10.8 |
| County | El Dorado- | 16.8 | 10.8 |
| County | Fresno | 16.8 | 10.8 |
| County | Glenn | 16.8 | 10.8 |
| County | Humboldt | 16.8 | 10.8 |
| County | Imperial | 10.2 | 7.3 |
| County | Inyo | 16.8 | 10.8 |
| County | Kern-Mojave | 16.8 | 10.8 |
| County | Kern-San | 16.8 | 10.8 |
| County | Kings | 16.8 | 10.8 |
| County | Lake | 16.8 | 10.8 |
| County | Lassen | 16.8 | 10.8 |
| County | Los Angeles- | 16.8 | 10.8 |
| County | Los Angeles- | 19.8 | 14.7 |
| County | Madera | 16.8 | 10.8 |
| County | Marin | 10.8 | 10.8 |
| County | Mariposa | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Mendocino- | 16.8 | 10.8 |
| County | Merced | 16.8 | 10.8 |
| County | Modoc | 16.8 | 10.8 |
| County | Mono | 16.8 | 10.8 |
| County | Monterey | 16.8 | 10.8 |
| County | Napa | 10.8 | 10.8 |

| | | | |
|---|---|---|---|
| County | Nevada | 16.8 | 10.8 |
| County | Orange | 19.8 | 14.7 |
| County | Placer-Lake | 16.8 | 10.8 |
| County | Placer-Mountain | 16.8 | 10.8 |
| County | Placer- | 16.8 | 10.8 |
| County | Plumas | 16.8 | 10.8 |
| County | Riverside- | 16.8 | 10.8 |
| County | Riverside- | 19.8 | 14.7 |
| County | Riverside-Salton | 14.6 | 11 |
| County | Riverside-South | 19.8 | 14.7 |
| County | Sacramento | 15 | 10 |
| County | San Benito | 16.8 | 10.8 |
| County | San Bernardino- | 16.8 | 10.8 |
| County | San Bernardino- | 19.8 | 14.7 |
| County | San Diego | 16.8 | 10.8 |
| County | San Francisco | 10.8 | 10.8 |
| County | San Joaquin | 16.8 | 10.8 |
| County | San Luis Obispo | 13 | 13 |
| County | San Mateo | 10.8 | 10.8 |
| County | Santa Barbara- | 8.3 | 8.3 |
| County | Santa Barbara- | 8.3 | 8.3 |
| County | Santa Clara | 10.8 | 10.8 |
| County | Santa Cruz | 16.8 | 10.8 |
| County | Shasta | 16.8 | 10.8 |
| County | Sierra | 16.8 | 10.8 |
| County | Siskiyou | 16.8 | 10.8 |
| County | Solano- | 15 | 10 |
| County | Solano-San | 16.8 | 10.8 |
| County | Sonoma-North | 16.8 | 10.8 |
| County | Sonoma-San | 10.8 | 10.8 |
| County | Stanislaus | 16.8 | 10.8 |
| County | Sutter | 16.8 | 10.8 |
| County | Tehama | 16.8 | 10.8 |
| County | Trinity | 16.8 | 10.8 |
| County | Tulare | 16.8 | 10.8 |
| County | Tuolumne | 16.8 | 10.8 |
| County | Ventura | 16.8 | 10.8 |
| County | Yolo | 15 | 10 |
| County | Yuba | 16.8 | 10.8 |
| Statewide | Statewide | 16.8 | 10.8 |

| Worker Trip Length by Air Basin | | |
|---|---|---|
| **Air Basin** | **Rural (miles)** | **Urban (miles)** |
| Great Basin Valleys | 16.8 | 10.8 |
| Lake County | 16.8 | 10.8 |
| Lake Tahoe | 16.8 | 10.8 |
| Mojave Desert | 16.8 | 10.8 |
| Mountain Counties | 16.8 | 10.8 |
| North Central Coast | 17.1 | 12.3 |
| North Coast | 16.8 | 10.8 |
| Northeast Plateau | 16.8 | 10.8 |
| Sacramento Valley | 16.8 | 10.8 |
| Salton Sea | 14.6 | 11 |
| San Diego | 16.8 | 10.8 |
| San Francisco Bay Area | 10.8 | 10.8 |
| San Joaquin Valley | 16.8 | 10.8 |
| South Central Coast | 16.8 | 10.8 |
| South Coast | 19.8 | 14.7 |
| **Average** | **16.47** | **11.17** |
| **Mininum** | **10.80** | **10.80** |
| **Maximum** | **19.80** | **14.70** |
| **Range** | **9.00** | **3.90** |

Attachment B



**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

## 2.0 Emissions Summary

**2.1 Overall Construction**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1713 | 1.8242 | 1.1662 | 2.4000e-003 | 0.4169 | 0.0817 | 0.4986 | 0.1795 | 0.0754 | 0.2549 | 0.0000 | 213.1969 | 213.1969 | 0.0601 | 0.0000 | 214.6993 |
| 2022 | 0.6904 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.682 6 | 1,721.682 6 | 0.1294 | 0.0000 | 1,724.918 7 |
| 2023 | 0.6148 | 3.3649 | 5.6747 | 0.0178 | 1.1963 | 0.0986 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.529 5 | 1,627.529 5 | 0.1185 | 0.0000 | 1,630.492 5 |
| 2024 | 4.1619 | 0.1335 | 0.2810 | 5.9000e-004 | 0.0325 | 6.4700e-003 | 0.0390 | 8.6300e-003 | 6.0400e-003 | 0.0147 | 0.0000 | 52.9078 | 52.9078 | 8.0200e-003 | 0.0000 | 53.1082 |
| **Maximum** | **4.1619** | **4.1142** | **6.1625** | **0.0189** | **1.3058** | **0.1201** | **1.4259** | **0.3460** | **0.1128** | **0.4588** | **0.0000** | **1,721.682 6** | **1,721.682 6** | **0.1294** | **0.0000** | **1,724.918 7** |

**2.1 Overall Construction**

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1713 | 1.8242 | 1.1662 | 2.4000e-003 | 0.4169 | 0.0817 | 0.4986 | 0.1795 | 0.0754 | 0.2549 | 0.0000 | 213.1967 | 213.1967 | 0.0601 | 0.0000 | 214.6991 |
| 2022 | 0.6904 | 4.1142 | 6.1625 | 0.0189 | 1.3058 | 0.1201 | 1.4259 | 0.3460 | 0.1128 | 0.4588 | 0.0000 | 1,721.682 3 | 1,721.682 3 | 0.1294 | 0.0000 | 1,724.918 3 |
| 2023 | 0.6148 | 3.3648 | 5.6747 | 0.0178 | 1.1963 | 0.0996 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.529 1 | 1,627.529 1 | 0.1185 | 0.0000 | 1,630.492 1 |
| 2024 | 4.1619 | 0.1335 | 0.2810 | 5.9000e-004 | 0.0325 | 6.4700e-003 | 0.0390 | 8.6300e-003 | 6.0400e-003 | 0.0147 | 0.0000 | 52.9077 | 52.9077 | 8.0200e-003 | 0.0000 | 53.1082 |
| **Maximum** | **4.1619** | **4.1142** | **6.1625** | **0.0189** | **1.3058** | **0.1201** | **1.4259** | **0.3460** | **0.1128** | **0.4588** | **0.0000** | **1,721.682 3** | **1,721.682 3** | **0.1294** | **0.0000** | **1,724.918 3** |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 9-1-2021 | 11-30-2021 | 1.4103 | 1.4103 |
| 2 | 12-1-2021 | 2-28-2022 | 1.3613 | 1.3613 |
| 3 | 3-1-2022 | 5-31-2022 | 1.1985 | 1.1985 |
| 4 | 6-1-2022 | 8-31-2022 | 1.1921 | 1.1921 |
| 5 | 9-1-2022 | 11-30-2022 | 1.1918 | 1.1918 |
| 6 | 12-1-2022 | 2-28-2023 | 1.0774 | 1.0774 |
| 7 | 3-1-2023 | 5-31-2023 | 1.0320 | 1.0320 |
| 8 | 6-1-2023 | 8-31-2023 | 1.0260 | 1.0260 |

| | | | | |
|---|---|---|---|---|
| 9 | 9-1-2023 | 11-30-2023 | 1.0265 | 1.0265 |
| 10 | 12-1-2023 | 2-29-2024 | 2.8857 | 2.8857 |
| 11 | 3-1-2024 | 5-31-2024 | 1.6207 | 1.6207 |
| | | Highest | 2.8857 | 2.8857 |

## 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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| **Total** | **6.8692** | **9.5223** | **30.3407** | **0.0914** | **7.7979** | **0.2260** | **8.0240** | **2.0895** | **0.2219** | **2.3114** | **236.9712** | **12,294.1807** | **12,531.1519** | **15.7904** | **0.1260** | **12,963.4751** |

## 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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| **Total** | **6.8692** | **9.5223** | **30.3407** | **0.0914** | **7.7979** | **0.2260** | **8.0240** | **2.0895** | **0.2219** | **2.3114** | **236.9712** | **12,294.1807** | **12,531.1519** | **15.7904** | **0.1260** | **12,963.4751** |

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

## 3.0 Construction Detail

**Construction Phase**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |
| **Total** | **0.0475** | **0.4716** | **0.3235** | **5.8000e-004** | **0.0496** | **0.0233** | **0.0729** | **7.5100e-003** | **0.0216** | **0.0291** | **0.0000** | **51.0012** | **51.0012** | **0.0144** | **0.0000** | **51.3601** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.7000e-004 | 7.5000e-004 | 9.5100e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.5000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.2251 | 2.2251 | 7.0000e-005 | 0.0000 | 2.2267 |
| **Total** | **2.9000e-003** | **0.0641** | **0.0233** | **2.0000e-004** | **6.4100e-003** | **2.1000e-004** | **6.6200e-003** | **1.7300e-003** | **2.0000e-004** | **1.9300e-003** | **0.0000** | **19.6816** | **19.6816** | **1.2800e-003** | **0.0000** | **19.7136** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |
| **Total** | **0.0475** | **0.4716** | **0.3235** | **5.8000e-004** | **0.0496** | **0.0233** | **0.0729** | **7.5100e-003** | **0.0216** | **0.0291** | **0.0000** | **51.0011** | **51.0011** | **0.0144** | **0.0000** | **51.3600** |

### 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.7000e-004 | 7.5000e-004 | 9.5100e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.5000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.2251 | 2.2251 | 7.0000e-005 | 0.0000 | 2.2267 |
| **Total** | **2.9000e-003** | **0.0641** | **0.0233** | **2.0000e-004** | **6.4100e-003** | **2.1000e-004** | **6.6200e-003** | **1.7300e-003** | **2.0000e-004** | **1.9300e-003** | **0.0000** | **19.6816** | **19.6816** | **1.2800e-003** | **0.0000** | **19.7136** |

### 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |
| **Total** | **0.0389** | **0.4050** | **0.2115** | **3.8000e-004** | **0.1807** | **0.0204** | **0.2011** | **0.0993** | **0.0188** | **0.1181** | **0.0000** | **33.4357** | **33.4357** | **0.0108** | **0.0000** | **33.7061** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |
| **Total** | **7.7000e-004** | **6.0000e-004** | **6.8100e-003** | **2.0000e-005** | **1.9700e-003** | **2.0000e-005** | **1.9900e-003** | **5.2000e-004** | **1.0000e-005** | **5.4000e-004** | **0.0000** | **1.7801** | **1.7801** | **5.0000e-005** | **0.0000** | **1.7814** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |
| **Total** | **0.0389** | **0.4050** | **0.2115** | **3.8000e-004** | **0.1807** | **0.0204** | **0.2011** | **0.0993** | **0.0188** | **0.1181** | **0.0000** | **33.4357** | **33.4357** | **0.0108** | **0.0000** | **33.7060** |

### 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.7000e-004 | 6.0000e-004 | 6.8100e-003 | 2.0000e-005 | 1.9700e-003 | 2.0000e-005 | 1.9900e-003 | 5.2000e-004 | 1.0000e-005 | 5.4000e-004 | 0.0000 | 1.7801 | 1.7801 | 5.0000e-005 | 0.0000 | 1.7814 |
| **Total** | **7.7000e-004** | **6.0000e-004** | **6.8100e-003** | **2.0000e-005** | **1.9700e-003** | **2.0000e-005** | **1.9900e-003** | **5.2000e-004** | **1.0000e-005** | **5.4000e-004** | **0.0000** | **1.7801** | **1.7801** | **5.0000e-005** | **0.0000** | **1.7814** |

### 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |
| **Total** | **0.0796** | **0.8816** | **0.5867** | **1.1800e-003** | **0.1741** | **0.0377** | **0.2118** | **0.0693** | **0.0347** | **0.1040** | **0.0000** | **103.5405** | **103.5405** | **0.0335** | **0.0000** | **104.3776** |

### 3.4 Grading - 2021

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |
| **Total** | **1.6400e-003** | **1.2700e-003** | **0.0144** | **4.0000e-005** | **4.1600e-003** | **3.0000e-005** | **4.2000e-003** | **1.1100e-003** | **3.0000e-005** | **1.1400e-003** | **0.0000** | **3.7579** | **3.7579** | **1.1000e-004** | **0.0000** | **3.7607** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |
| **Total** | **0.0796** | **0.8816** | **0.5867** | **1.1800e-003** | **0.1741** | **0.0377** | **0.2118** | **0.0693** | **0.0347** | **0.1040** | **0.0000** | **103.5403** | **103.5403** | **0.0335** | **0.0000** | **104.3775** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.6400e-003 | 1.2700e-003 | 0.0144 | 4.0000e-005 | 4.1600e-003 | 3.0000e-005 | 4.2000e-003 | 1.1100e-003 | 3.0000e-005 | 1.1400e-003 | 0.0000 | 3.7579 | 3.7579 | 1.1000e-004 | 0.0000 | 3.7607 |
| **Total** | **1.6400e-003** | **1.2700e-003** | **0.0144** | **4.0000e-005** | **4.1600e-003** | **3.0000e-005** | **4.2000e-003** | **1.1100e-003** | **3.0000e-005** | **1.1400e-003** | **0.0000** | **3.7579** | **3.7579** | **1.1000e-004** | **0.0000** | **3.7607** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| **Total** | **0.0127** | **0.1360** | **0.1017** | **2.2000e-004** | **0.0807** | **5.7200e-003** | **0.0865** | **0.0180** | **5.2600e-003** | **0.0233** | **0.0000** | **19.0871** | **19.0871** | **6.1700e-003** | **0.0000** | **19.2414** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |
| **Total** | **2.8000e-004** | **2.1000e-004** | **2.4400e-003** | **1.0000e-005** | **7.7000e-004** | **1.0000e-005** | **7.7000e-004** | **2.0000e-004** | **1.0000e-005** | **2.1000e-004** | **0.0000** | **0.6679** | **0.6679** | **2.0000e-005** | **0.0000** | **0.6684** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| **Total** | **0.0127** | **0.1360** | **0.1017** | **2.2000e-004** | **0.0807** | **5.7200e-003** | **0.0865** | **0.0180** | **5.2600e-003** | **0.0233** | **0.0000** | **19.0871** | **19.0871** | **6.1700e-003** | **0.0000** | **19.2414** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.1000e-004 | 2.4400e-003 | 1.0000e-005 | 7.7000e-004 | 1.0000e-005 | 7.7000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6679 | 0.6679 | 2.0000e-005 | 0.0000 | 0.6684 |
| **Total** | **2.8000e-004** | **2.1000e-004** | **2.4400e-003** | **1.0000e-005** | **7.7000e-004** | **1.0000e-005** | **7.7000e-004** | **2.0000e-004** | **1.0000e-005** | **2.1000e-004** | **0.0000** | **0.6679** | **0.6679** | **2.0000e-005** | **0.0000** | **0.6684** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |
| **Total** | **0.2158** | **1.9754** | **2.0700** | **3.4100e-003** | | **0.1023** | **0.1023** | | **0.0963** | **0.0963** | **0.0000** | **293.1324** | **293.1324** | **0.0702** | **0.0000** | **294.8881** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.4088 | 0.3066 | 3.5305 | 0.0107 | 1.1103 | 8.8700e-003 | 1.1192 | 0.2949 | 8.1700e-003 | 0.3031 | 0.0000 | 966.8117 | 966.8117 | 0.0266 | 0.0000 | 967.4773 |
| **Total** | **0.4616** | **2.0027** | **3.9885** | **0.0152** | **1.2243** | **0.0121** | **1.2363** | **0.3278** | **0.0112** | **0.3390** | **0.0000** | **1,408.795 2** | **1,408.795 2** | **0.0530** | **0.0000** | **1,410.120 8** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |
| **Total** | **0.2158** | **1.9754** | **2.0700** | **3.4100e-003** | | **0.1023** | **0.1023** | | **0.0963** | **0.0963** | **0.0000** | **293.1321** | **293.1321** | **0.0702** | **0.0000** | **294.8877** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.4088 | 0.3066 | 3.5305 | 0.0107 | 1.1103 | 8.8700e-003 | 1.1192 | 0.2949 | 8.1700e-003 | 0.3031 | 0.0000 | 966.8117 | 966.8117 | 0.0266 | 0.0000 | 967.4773 |
| **Total** | **0.4616** | **2.0027** | **3.9885** | **0.0152** | **1.2243** | **0.0121** | **1.2363** | **0.3278** | **0.0112** | **0.3390** | **0.0000** | **1,408.795 2** | **1,408.795 2** | **0.0530** | **0.0000** | **1,410.120 8** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |
| **Total** | **0.1942** | **1.7765** | **2.0061** | **3.3300e-003** | | **0.0864** | **0.0864** | | **0.0813** | **0.0813** | **0.0000** | **286.2789** | **286.2789** | **0.0681** | **0.0000** | **287.9814** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.3753 | 0.2708 | 3.1696 | 0.0101 | 1.0840 | 8.4100e-003 | 1.0924 | 0.2879 | 7.7400e-003 | 0.2957 | 0.0000 | 909.3439 | 909.3439 | 0.0234 | 0.0000 | 909.9291 |
| **Total** | **0.4135** | **1.5218** | **3.5707** | **0.0144** | **1.1953** | **9.8700e-003** | **1.2051** | **0.3200** | **9.1400e-003** | **0.3292** | **0.0000** | **1,327.3369** | **1,327.3369** | **0.0462** | **0.0000** | **1,328.4916** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |
| **Total** | **0.1942** | **1.7765** | **2.0061** | **3.3300e-003** | | **0.0864** | **0.0864** | | **0.0813** | **0.0813** | **0.0000** | **286.2785** | **286.2785** | **0.0681** | **0.0000** | **287.9811** |

### 3.5 Building Construction - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.3753 | 0.2708 | 3.1696 | 0.0101 | 1.0840 | 8.4100e-003 | 1.0924 | 0.2879 | 7.7400e-003 | 0.2957 | 0.0000 | 909.3439 | 909.3439 | 0.0234 | 0.0000 | 909.9291 |
| **Total** | **0.4135** | **1.5218** | **3.5707** | **0.0144** | **1.1953** | **9.8700e-003** | **1.2051** | **0.3200** | **9.1400e-003** | **0.3292** | **0.0000** | **1,327.3369** | **1,327.3369** | **0.0462** | **0.0000** | **1,328.4916** |

### 3.6 Paving - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.7100e-003** | **0.0663** | **0.0948** | **1.5000e-004** | | **3.3200e-003** | **3.3200e-003** | | **3.0500e-003** | **3.0500e-003** | **0.0000** | **13.0175** | **13.0175** | **4.2100e-003** | **0.0000** | **13.1227** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |
| Total | **3.7000e-004** | **2.7000e-004** | **3.1200e-003** | **1.0000e-005** | **1.0700e-003** | **1.0000e-005** | **1.0800e-003** | **2.8000e-004** | **1.0000e-005** | **2.9000e-004** | **0.0000** | **0.8963** | **0.8963** | **2.0000e-005** | **0.0000** | **0.8968** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | **6.7100e-003** | **0.0663** | **0.0948** | **1.5000e-004** | | **3.3200e-003** | **3.3200e-003** | | **3.0500e-003** | **3.0500e-003** | **0.0000** | **13.0175** | **13.0175** | **4.2100e-003** | **0.0000** | **13.1227** |

### 3.6 Paving - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.7000e-004 | 2.7000e-004 | 3.1200e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8963 | 0.8963 | 2.0000e-005 | 0.0000 | 0.8968 |
| **Total** | **3.7000e-004** | **2.7000e-004** | **3.1200e-003** | **1.0000e-005** | **1.0700e-003** | **1.0000e-005** | **1.0800e-003** | **2.8000e-004** | **1.0000e-005** | **2.9000e-004** | **0.0000** | **0.8963** | **0.8963** | **2.0000e-005** | **0.0000** | **0.8968** |

### 3.6 Paving - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0109** | **0.1048** | **0.1609** | **2.5000e-004** | | **5.1500e-003** | **5.1500e-003** | | **4.7400e-003** | **4.7400e-003** | **0.0000** | **22.0292** | **22.0292** | **7.1200e-003** | **0.0000** | **22.2073** |

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |
| **Total** | **5.9000e-004** | **4.1000e-004** | **4.9200e-003** | **2.0000e-005** | **1.8100e-003** | **1.0000e-005** | **1.8200e-003** | **4.8000e-004** | **1.0000e-005** | **4.9000e-004** | **0.0000** | **1.4697** | **1.4697** | **4.0000e-005** | **0.0000** | **1.4706** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0109** | **0.1048** | **0.1609** | **2.5000e-004** | | **5.1500e-003** | **5.1500e-003** | | **4.7400e-003** | **4.7400e-003** | **0.0000** | **22.0292** | **22.0292** | **7.1200e-003** | **0.0000** | **22.2073** |

### 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.9000e-004 | 4.1000e-004 | 4.9200e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.4697 | 1.4697 | 4.0000e-005 | 0.0000 | 1.4706 |
| **Total** | **5.9000e-004** | **4.1000e-004** | **4.9200e-003** | **2.0000e-005** | **1.8100e-003** | **1.0000e-005** | **1.8200e-003** | **4.8000e-004** | **1.0000e-005** | **4.9000e-004** | **0.0000** | **1.4697** | **1.4697** | **4.0000e-005** | **0.0000** | **1.4706** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| **Total** | **4.1404** | **0.0213** | **0.0317** | **5.0000e-005** | | **1.0700e-003** | **1.0700e-003** | | **1.0700e-003** | **1.0700e-003** | **0.0000** | **4.4682** | **4.4682** | **2.5000e-004** | **0.0000** | **4.4745** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |
| **Total** | **0.0101** | **6.9900e-003** | **0.0835** | **2.8000e-004** | **0.0307** | **2.3000e-004** | **0.0309** | **8.1500e-003** | **2.2000e-004** | **8.3700e-003** | **0.0000** | **24.9407** | **24.9407** | **6.1000e-004** | **0.0000** | **24.9558** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| **Total** | **4.1404** | **0.0213** | **0.0317** | **5.0000e-005** | | **1.0700e-003** | **1.0700e-003** | | **1.0700e-003** | **1.0700e-003** | **0.0000** | **4.4682** | **4.4682** | **2.5000e-004** | **0.0000** | **4.4745** |

### 3.7 Architectural Coating - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0101 | 6.9900e-003 | 0.0835 | 2.8000e-004 | 0.0307 | 2.3000e-004 | 0.0309 | 8.1500e-003 | 2.2000e-004 | 8.3700e-003 | 0.0000 | 24.9407 | 24.9407 | 6.1000e-004 | 0.0000 | 24.9558 |
| **Total** | **0.0101** | **6.9900e-003** | **0.0835** | **2.8000e-004** | **0.0307** | **2.3000e-004** | **0.0309** | **8.1500e-003** | **2.2000e-004** | **8.3700e-003** | **0.0000** | **24.9407** | **24.9407** | **6.1000e-004** | **0.0000** | **24.9558** |

## 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 | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Unmitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| NaturalGas Mitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |
| NaturalGas Unmitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |

**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 | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.8036 | 92.8036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| **Total** | | **0.1398** | **1.2312** | **0.7770** | **7.6200e-003** | | **0.0966** | **0.0966** | | **0.0966** | **0.0966** | **0.0000** | **1,383.4268** | **1,383.4268** | **0.0265** | **0.0254** | **1,391.6478** |

**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 | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.8036 | 92.8036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| **Total** | | **0.1398** | **1.2312** | **0.7770** | **7.6200e-003** | | **0.0966** | **0.0966** | | **0.0966** | **0.0966** | **0.0000** | **1,383.4268** | **1,383.4268** | **0.0265** | **0.0254** | **1,391.6478** |

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.84697e+006 | 1,257.6879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| **Total** | | **2,512.6465** | **0.1037** | **0.0215** | **2,521.6356** |

**5.3 Energy by Land Use - Electricity**

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.84697e+006 | 1,257.6879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| **Total** | | **2,512.6465** | **0.1037** | **0.0215** | **2,521.6356** |

**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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Unmitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

### 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 | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1168 | 204.1168 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| **Total** | **5.1437** | **0.2950** | **10.3804** | **1.6600e-003** | | **0.0714** | **0.0714** | | **0.0714** | **0.0714** | **0.0000** | **220.9670** | **220.9670** | **0.0201** | **3.7400e-003** | **222.5835** |

**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 | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3296 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| **Total** | **5.1437** | **0.2950** | **10.3804** | **1.6600e-003** | | **0.0714** | **0.0714** | | **0.0714** | **0.0714** | **0.0000** | **220.9670** | **220.9670** | **0.0201** | **3.7400e-003** | **222.5835** |

## 7.0 Water Detail

**7.1 Mitigation Measures Water**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Unmitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

**7.2 Water by Land Use**

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| **Total** | | **585.8052** | **3.0183** | **0.0755** | **683.7567** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| **Total** | | **585.8052** | **3.0183** | **0.0755** | **683.7567** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Unmitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

**8.2 Waste by Land Use**

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| **Total** | | **207.8079** | **12.2811** | **0.0000** | **514.8354** |

### 8.2 Waste by Land Use

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| **Total** | | **207.8079** | **12.2811** | **0.0000** | **514.8354** |

### 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**

**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2769 | 46.4588 | 31.6840 | 0.0643 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,234.7974 | 6,234.7974 | 1.9495 | 0.0000 | 6,283.5362 |
| 2022 | 5.3304 | 38.8967 | 49.5629 | 0.1517 | 9.8688 | 1.6366 | 10.7727 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |
| 2023 | 4.8957 | 26.3317 | 46.7567 | 0.1472 | 9.8688 | 0.7794 | 10.6482 | 2.6381 | 0.7322 | 3.3702 | 0.0000 | 14,807.5269 | 14,807.5269 | 1.0250 | 0.0000 | 14,833.1521 |
| 2024 | 237.1630 | 9.6575 | 15.1043 | 0.0244 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,361.3989 | 2,361.3989 | 0.7177 | 0.0000 | 2,379.3421 |
| **Maximum** | **237.1630** | **46.4588** | **49.5629** | **0.1517** | **18.2675** | **2.0461** | **20.3135** | **9.9840** | **1.8824** | **11.8664** | **0.0000** | **15,251.5674** | **15,251.5674** | **1.9503** | **0.0000** | **15,278.5288** |

**2.1 Overall Construction (Maximum Daily Emission)**

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2769 | 46.4588 | 31.6840 | 0.0643 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,234.7974 | 6,234.7974 | 1.9495 | 0.0000 | 6,283.5362 |
| 2022 | 5.3304 | 38.8967 | 49.5629 | 0.1517 | 9.8688 | 1.6366 | 10.7727 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 15,251.5674 | 15,251.5674 | 1.9503 | 0.0000 | 15,278.5288 |
| 2023 | 4.8957 | 26.3317 | 46.7567 | 0.1472 | 9.8688 | 0.7794 | 10.6482 | 2.6381 | 0.7322 | 3.3702 | 0.0000 | 14,807.5269 | 14,807.5269 | 1.0250 | 0.0000 | 14,833.1520 |
| 2024 | 237.1630 | 9.6575 | 15.1043 | 0.0244 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,361.3989 | 2,361.3989 | 0.7177 | 0.0000 | 2,379.3421 |
| **Maximum** | **237.1630** | **46.4588** | **49.5629** | **0.1517** | **18.2675** | **2.0461** | **20.3135** | **9.9840** | **1.8824** | **11.8664** | **0.0000** | **15,251.5674** | **15,251.5674** | **1.9503** | **0.0000** | **15,278.5288** |

| | ROG | NOx | 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 |

**2.2 Overall Operational**

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| **Total** | **41.1168** | **67.2262** | **207.5497** | **0.6278** | **45.9592** | **2.4626** | **48.4217** | **12.2950** | **2.4385** | **14.7336** | **0.0000** | **76,811.1816** | **76,811.1816** | **2.8282** | **0.4832** | **77,025.8786** |

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| **Total** | **41.1168** | **67.2262** | **207.5497** | **0.6278** | **45.9592** | **2.4626** | **48.4217** | **12.2950** | **2.4385** | **14.7336** | **0.0000** | **76,811.1816** | **76,811.1816** | **2.8282** | **0.4832** | **77,025.8786** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0643 | 0.0442 | 0.6042 | 1.7100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 170.8155 | 170.8155 | 5.0300e-003 | | 170.9413 |
| **Total** | **0.1916** | **4.1394** | **1.5644** | **0.0136** | **0.4346** | **0.0139** | **0.4485** | **0.1176** | **0.0133** | **0.1309** | | **1,463.0568** | **1,463.0568** | **0.0927** | | **1,465.3750** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | **0.0000** | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0643 | 0.0442 | 0.6042 | 1.7100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 170.8155 | 170.8155 | 5.0300e-003 | | 170.9413 |
| **Total** | **0.1916** | **4.1394** | **1.5644** | **0.0136** | **0.4346** | **0.0139** | **0.4485** | **0.1176** | **0.0133** | **0.1309** | | **1,463.0568** | **1,463.0568** | **0.0927** | | **1,465.3750** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |
| **Total** | **0.0772** | **0.0530** | **0.7250** | **2.0600e-003** | **0.2012** | **1.6300e-003** | **0.2028** | **0.0534** | **1.5000e-003** | **0.0549** | | **204.9786** | **204.9786** | **6.0400e-003** | | **205.1296** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | **0.0000** | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

### 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0772 | 0.0530 | 0.7250 | 2.0600e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 204.9786 | 204.9786 | 6.0400e-003 | | 205.1296 |
| **Total** | **0.0772** | **0.0530** | **0.7250** | **2.0600e-003** | **0.2012** | **1.6300e-003** | **0.2028** | **0.0534** | **1.5000e-003** | **0.0549** | | **204.9786** | **204.9786** | **6.0400e-003** | | **205.1296** |

### 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |
| **Total** | **0.0857** | **0.0589** | **0.8056** | **2.2900e-003** | **0.2236** | **1.8100e-003** | **0.2254** | **0.0593** | **1.6600e-003** | **0.0610** | | **227.7540** | **227.7540** | **6.7100e-003** | | **227.9217** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | **0.0000** | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0857 | 0.0589 | 0.8056 | 2.2900e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 227.7540 | 227.7540 | 6.7100e-003 | | 227.9217 |
| **Total** | **0.0857** | **0.0589** | **0.8056** | **2.2900e-003** | **0.2236** | **1.8100e-003** | **0.2254** | **0.0593** | **1.6600e-003** | **0.0610** | | **227.7540** | **227.7540** | **6.7100e-003** | | **227.9217** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |
| **Total** | **0.0803** | **0.0532** | **0.7432** | **2.2100e-003** | **0.2236** | **1.7500e-003** | **0.2253** | **0.0593** | **1.6100e-003** | **0.0609** | | **219.7425** | **219.7425** | **6.0600e-003** | | **219.8941** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | **0.0000** | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0803 | 0.0532 | 0.7432 | 2.2100e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 219.7425 | 219.7425 | 6.0600e-003 | | 219.8941 |
| **Total** | **0.0803** | **0.0532** | **0.7432** | **2.2100e-003** | **0.2236** | **1.7500e-003** | **0.2253** | **0.0593** | **1.6100e-003** | **0.0609** | | **219.7425** | **219.7425** | **6.0600e-003** | | **219.8941** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.5482 | 3,896.5482 | 0.2236 | | 3,902.1384 |
| Worker | 3.2162 | 2.1318 | 29.7654 | 0.0883 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,800.6857 | 8,800.6857 | 0.2429 | | 8,806.7582 |
| **Total** | **3.6242** | **15.3350** | **33.1995** | **0.1247** | **9.8688** | **0.0949** | **9.9637** | **2.6381** | **0.0883** | **2.7263** | | **12,697.2339** | **12,697.2339** | **0.4665** | | **12,708.8966** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.5482 | 3,896.5482 | 0.2236 | | 3,902.1384 |
| Worker | 3.2162 | 2.1318 | 29.7654 | 0.0883 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,800.6857 | 8,800.6857 | 0.2429 | | 8,806.7582 |
| **Total** | **3.6242** | **15.3350** | **33.1995** | **0.1247** | **9.8688** | **0.0949** | **9.9637** | **2.6381** | **0.0883** | **2.7263** | | **12,697.2339** | **12,697.2339** | **0.4665** | | **12,708.8966** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.8762 | 3,773.8762 | 0.1982 | | 3,778.8300 |
| Worker | 3.0203 | 1.9287 | 27.4113 | 0.0851 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 8,478.4408 | 8,478.4408 | 0.2190 | | 8,483.9160 |
| **Total** | **3.3229** | **11.9468** | **30.5127** | **0.1203** | **9.8688** | **0.0797** | **9.9485** | **2.6381** | **0.0738** | **2.7118** | | **12,252.3170** | **12,252.3170** | **0.4172** | | **12,262.7460** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.8762 | 3,773.8762 | 0.1982 | | 3,778.8300 |
| Worker | 3.0203 | 1.9287 | 27.4113 | 0.0851 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 8,478.4408 | 8,478.4408 | 0.2190 | | 8,483.9160 |
| **Total** | **3.3229** | **11.9468** | **30.5127** | **0.1203** | **9.8688** | **0.0797** | **9.9485** | **2.6381** | **0.0738** | **2.7118** | | **12,252.3170** | **12,252.3170** | **0.4172** | | **12,262.7460** |

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |
| **Total** | **0.0566** | **0.0361** | **0.5133** | **1.5900e-003** | **0.1677** | **1.2800e-003** | **0.1689** | **0.0445** | **1.1700e-003** | **0.0456** | | **158.7723** | **158.7723** | **4.1000e-003** | | **158.8748** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | **0.0000** | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0566 | 0.0361 | 0.5133 | 1.5900e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 158.7723 | 158.7723 | 4.1000e-003 | | 158.8748 |
| **Total** | **0.0566** | **0.0361** | **0.5133** | **1.5900e-003** | **0.1677** | **1.2800e-003** | **0.1689** | **0.0445** | **1.1700e-003** | **0.0456** | | **158.7723** | **158.7723** | **4.1000e-003** | | **158.8748** |

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |
| **Total** | **0.0535** | **0.0329** | **0.4785** | **1.5400e-003** | **0.1677** | **1.2600e-003** | **0.1689** | **0.0445** | **1.1600e-003** | **0.0456** | | **153.8517** | **153.8517** | **3.7600e-003** | | **153.9458** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

### 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0535 | 0.0329 | 0.4785 | 1.5400e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 153.8517 | 153.8517 | 3.7600e-003 | | 153.9458 |
| **Total** | **0.0535** | **0.0329** | **0.4785** | **1.5400e-003** | **0.1677** | **1.2600e-003** | **0.1689** | **0.0445** | **1.1600e-003** | **0.0456** | | **153.8517** | **153.8517** | **3.7600e-003** | | **153.9458** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.0852 | 1,641.0852 | 0.0401 | | 1,642.0886 |
| **Total** | **0.5707** | **0.3513** | **5.1044** | **0.0165** | **1.7884** | **0.0134** | **1.8018** | **0.4743** | **0.0123** | **0.4866** | | **1,641.0852** | **1,641.0852** | **0.0401** | | **1,642.0886** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.5707 | 0.3513 | 5.1044 | 0.0165 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,641.0852 | 1,641.0852 | 0.0401 | | 1,642.0886 |
| **Total** | **0.5707** | **0.3513** | **5.1044** | **0.0165** | **1.7884** | **0.0134** | **1.8018** | **0.4743** | **0.0123** | **0.4866** | | **1,641.0852** | **1,641.0852** | **0.0401** | | **1,642.0886** |

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Unmitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4768.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**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 | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 36.7843 | 0.3959 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7589 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

**6.2 Area by SubCategory**

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.8500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

**11.0 Vegetation**

**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

## 2.0 Emissions Summary

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2865 | 46.4651 | 31.6150 | 0.0642 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,221.4937 | 6,221.4937 | 1.9491 | 0.0000 | 6,270.2214 |
| 2022 | 5.7218 | 38.9024 | 47.3319 | 0.1455 | 9.8688 | 1.6366 | 10.7736 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |
| 2023 | 5.2705 | 26.4914 | 44.5936 | 0.1413 | 9.8688 | 0.7900 | 10.6488 | 2.6381 | 0.7328 | 3.3708 | 0.0000 | 14,210.3424 | 14,210.3424 | 1.0230 | 0.0000 | 14,235.9160 |
| 2024 | 237.2328 | 9.5610 | 15.0611 | 0.0243 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,352.4178 | 2,352.4178 | 0.7175 | 0.0000 | 2,370.3550 |
| **Maximum** | **237.2328** | **46.4651** | **47.3319** | **0.1455** | **18.2675** | **2.0461** | **20.3135** | **9.9840** | **1.8824** | **11.8664** | **0.0000** | **14,630.3099** | **14,630.3099** | **1.9499** | **0.0000** | **14,657.2663** |

**2.1 Overall Construction (Maximum Daily Emission)**

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2865 | 46.4651 | 31.6150 | 0.0642 | 18.2675 | 2.0461 | 20.3135 | 9.9840 | 1.8824 | 11.8664 | 0.0000 | 6,221.4937 | 6,221.4937 | 1.9491 | 0.0000 | 6,270.2214 |
| 2022 | 5.7218 | 38.9024 | 47.3319 | 0.1455 | 9.8688 | 1.6366 | 10.7736 | 3.6558 | 1.5057 | 5.1615 | 0.0000 | 14,630.3099 | 14,630.3099 | 1.9499 | 0.0000 | 14,657.2663 |
| 2023 | 5.2705 | 26.4914 | 44.5936 | 0.1413 | 9.8688 | 0.7900 | 10.6488 | 2.6381 | 0.7328 | 3.3708 | 0.0000 | 14,210.3424 | 14,210.3424 | 1.0230 | 0.0000 | 14,235.9160 |
| 2024 | 237.2328 | 9.5610 | 15.0611 | 0.0243 | 1.7884 | 0.4698 | 1.8628 | 0.4743 | 0.4322 | 0.5476 | 0.0000 | 2,352.4178 | 2,352.4178 | 0.7175 | 0.0000 | 2,370.3550 |
| **Maximum** | **237.2328** | **46.4651** | **47.3319** | **0.1455** | **18.2675** | **2.0461** | **20.3135** | **9.9840** | **1.8824** | **11.8664** | **0.0000** | **14,630.3099** | **14,630.3099** | **1.9499** | **0.0000** | **14,657.2663** |

| | ROG | NOx | 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 |

**2.2 Overall Operational**

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| **Total** | **40.7912** | **67.7872** | **202.7424** | **0.6043** | **45.9592** | **2.4640** | **48.4231** | **12.2950** | **2.4399** | **14.7349** | **0.0000** | **74,422.3787** | **74,422.3787** | **2.8429** | **0.4832** | **74,637.4417** |

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| **Total** | **40.7912** | **67.7872** | **202.7424** | **0.6043** | **45.9592** | **2.4640** | **48.4231** | **12.2950** | **2.4399** | **14.7349** | **0.0000** | **74,422.3787** | **74,422.3787** | **2.8429** | **0.4832** | **74,637.4417** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0715 | 0.0489 | 0.5524 | 1.6100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 160.8377 | 160.8377 | 4.7300e-003 | | 160.9560 |
| **Total** | **0.2019** | **4.1943** | **1.5706** | **0.0133** | **0.4346** | **0.0141** | **0.4487** | **0.1176** | **0.0135** | **0.1311** | | **1,430.6932** | **1,430.6932** | **0.0955** | | **1,433.0812** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | **0.0000** | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0715 | 0.0489 | 0.5524 | 1.6100e-003 | 0.1677 | 1.3500e-003 | 0.1690 | 0.0445 | 1.2500e-003 | 0.0457 | | 160.8377 | 160.8377 | 4.7300e-003 | | 160.9560 |
| **Total** | **0.2019** | **4.1943** | **1.5706** | **0.0133** | **0.4346** | **0.0141** | **0.4487** | **0.1176** | **0.0135** | **0.1311** | | **1,430.6932** | **1,430.6932** | **0.0955** | | **1,433.0812** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |
| **Total** | **0.0858** | **0.0587** | **0.6629** | **1.9400e-003** | **0.2012** | **1.6300e-003** | **0.2028** | **0.0534** | **1.5000e-003** | **0.0549** | | **193.0052** | **193.0052** | **5.6800e-003** | | **193.1472** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | **0.0000** | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0858 | 0.0587 | 0.6629 | 1.9400e-003 | 0.2012 | 1.6300e-003 | 0.2028 | 0.0534 | 1.5000e-003 | 0.0549 | | 193.0052 | 193.0052 | 5.6800e-003 | | 193.1472 |
| **Total** | **0.0858** | **0.0587** | **0.6629** | **1.9400e-003** | **0.2012** | **1.6300e-003** | **0.2028** | **0.0534** | **1.5000e-003** | **0.0549** | | **193.0052** | **193.0052** | **5.6800e-003** | | **193.1472** |

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |
| **Total** | **0.0954** | **0.0652** | **0.7365** | **2.1500e-003** | **0.2236** | **1.8100e-003** | **0.2254** | **0.0593** | **1.6600e-003** | **0.0610** | | **214.4502** | **214.4502** | **6.3100e-003** | | **214.6080** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | **0.0000** | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0954 | 0.0652 | 0.7365 | 2.1500e-003 | 0.2236 | 1.8100e-003 | 0.2254 | 0.0593 | 1.6600e-003 | 0.0610 | | 214.4502 | 214.4502 | 6.3100e-003 | | 214.6080 |
| **Total** | **0.0954** | **0.0652** | **0.7365** | **2.1500e-003** | **0.2236** | **1.8100e-003** | **0.2254** | **0.0593** | **1.6600e-003** | **0.0610** | | **214.4502** | **214.4502** | **6.3100e-003** | | **214.6080** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |
| **Total** | **0.0896** | **0.0589** | **0.6784** | **2.0800e-003** | **0.2236** | **1.7500e-003** | **0.2253** | **0.0593** | **1.6100e-003** | **0.0609** | | **206.9139** | **206.9139** | **5.7000e-003** | | **207.0563** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | **0.0000** | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0896 | 0.0589 | 0.6784 | 2.0800e-003 | 0.2236 | 1.7500e-003 | 0.2253 | 0.0593 | 1.6100e-003 | 0.0609 | | 206.9139 | 206.9139 | 5.7000e-003 | | 207.0563 |
| **Total** | **0.0896** | **0.0589** | **0.6784** | **2.0800e-003** | **0.2236** | **1.7500e-003** | **0.2253** | **0.0593** | **1.6100e-003** | **0.0609** | | **206.9139** | **206.9139** | **5.7000e-003** | | **207.0563** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.0750 | 3,789.0750 | 0.2381 | | 3,795.0283 |
| Worker | 3.5872 | 2.3593 | 27.1680 | 0.0832 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,286.9013 | 8,286.9013 | 0.2282 | | 8,292.6058 |
| Total | **4.0156** | **15.5266** | **30.9685** | **0.1186** | **9.8688** | **0.0957** | **9.9645** | **2.6381** | **0.0891** | **2.7271** | | **12,075.9763** | **12,075.9763** | **0.4663** | | **12,087.6341** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| Total | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.0750 | 3,789.0750 | 0.2381 | | 3,795.0283 |
| Worker | 3.5872 | 2.3593 | 27.1680 | 0.0832 | 8.9533 | 0.0701 | 9.0234 | 2.3745 | 0.0646 | 2.4390 | | 8,286.9013 | 8,286.9013 | 0.2282 | | 8,292.6058 |
| Total | **4.0156** | **15.5266** | **30.9685** | **0.1186** | **9.8688** | **0.0957** | **9.9645** | **2.6381** | **0.0891** | **2.7271** | | **12,075.9763** | **12,075.9763** | **0.4663** | | **12,087.6341** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| Total | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.8156 | 0.0122 | 0.8277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.4007 | 3,671.4007 | 0.2096 | | 3,676.6417 |
| Worker | 3.3795 | 2.1338 | 24.9725 | 0.0801 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 7,983.7318 | 7,983.7318 | 0.2055 | | 7,988.8683 |
| Total | **3.6978** | **12.1065** | **28.3496** | **0.1144** | **9.8688** | **0.0803** | **9.9491** | **2.6381** | **0.0743** | **2.7124** | | **11,655.1325** | **11,655.1325** | **0.4151** | | **11,665.5099** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| Total | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.4007 | 3,671.4007 | 0.2096 | | 3,676.6417 |
| Worker | 3.3795 | 2.1338 | 24.9725 | 0.0801 | 8.9533 | 0.0681 | 9.0214 | 2.3745 | 0.0627 | 2.4372 | | 7,983.7318 | 7,983.7318 | 0.2055 | | 7,988.8683 |
| Total | **3.6978** | **12.1065** | **28.3496** | **0.1144** | **9.8688** | **0.0803** | **9.9491** | **2.6381** | **0.0743** | **2.7124** | | **11,655.1325** | **11,655.1325** | **0.4151** | | **11,665.5099** |

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |
| **Total** | **0.0633** | **0.0400** | **0.4677** | **1.5000e-003** | **0.1677** | **1.2800e-003** | **0.1689** | **0.0445** | **1.1700e-003** | **0.0456** | | **149.5081** | **149.5081** | **3.8500e-003** | | **149.6043** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | **0.0000** | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0633 | 0.0400 | 0.4677 | 1.5000e-003 | 0.1677 | 1.2800e-003 | 0.1689 | 0.0445 | 1.1700e-003 | 0.0456 | | 149.5081 | 149.5081 | 3.8500e-003 | | 149.6043 |
| **Total** | **0.0633** | **0.0400** | **0.4677** | **1.5000e-003** | **0.1677** | **1.2800e-003** | **0.1689** | **0.0445** | **1.1700e-003** | **0.0456** | | **149.5081** | **149.5081** | **3.8500e-003** | | **149.6043** |

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |
| **Total** | **0.0601** | **0.0364** | **0.4354** | **1.4500e-003** | **0.1677** | **1.2600e-003** | **0.1689** | **0.0445** | **1.1600e-003** | **0.0456** | | **144.8706** | **144.8706** | **3.5300e-003** | | **144.9587** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0601 | 0.0364 | 0.4354 | 1.4500e-003 | 0.1677 | 1.2600e-003 | 0.1689 | 0.0445 | 1.1600e-003 | 0.0456 | | 144.8706 | 144.8706 | 3.5300e-003 | | 144.9587 |
| **Total** | **0.0601** | **0.0364** | **0.4354** | **1.4500e-003** | **0.1677** | **1.2600e-003** | **0.1689** | **0.0445** | **1.1600e-003** | **0.0456** | | **144.8706** | **144.8706** | **3.5300e-003** | | **144.9587** |

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |
| **Total** | **0.6406** | **0.3886** | **4.6439** | **0.0155** | **1.7884** | **0.0134** | **1.8018** | **0.4743** | **0.0123** | **0.4866** | | **1,545.2860** | **1,545.2860** | **0.0376** | | **1,546.2262** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.6406 | 0.3886 | 4.6439 | 0.0155 | 1.7884 | 0.0134 | 1.8018 | 0.4743 | 0.0123 | 0.4866 | | 1,545.2860 | 1,545.2860 | 0.0376 | | 1,546.2262 |
| Total | **0.6406** | **0.3886** | **4.6439** | **0.0155** | **1.7884** | **0.0134** | **1.8018** | **0.4743** | **0.0123** | **0.4866** | | **1,545.2860** | **1,545.2860** | **0.0376** | | **1,546.2262** |

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Unmitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4768.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**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 | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 36.7843 | 0.3959 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7589 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

**6.2 Area by SubCategory**

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.8500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

**11.0 Vegetation**

**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1704 | 1.8234 | 1.1577 | 2.3800e-003 | 0.4141 | 0.0817 | 0.4959 | 0.1788 | 0.0754 | 0.2542 | 0.0000 | 210.7654 | 210.7654 | 0.0600 | 0.0000 | 212.2661 |
| 2022 | 0.5865 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6554 | 1,418.6554 | 0.1215 | 0.0000 | 1,421.6925 |
| 2023 | 0.5190 | 3.2850 | 4.7678 | 0.0147 | 0.8497 | 0.0971 | 0.9468 | 0.2283 | 0.0912 | 0.3195 | 0.0000 | 1,342.4412 | 1,342.4412 | 0.1115 | 0.0000 | 1,345.2291 |
| 2024 | 4.1592 | 0.1313 | 0.2557 | 5.0000e-004 | 0.0221 | 6.3900e-003 | 0.0285 | 5.8700e-003 | 5.9700e-003 | 0.0118 | 0.0000 | 44.6355 | 44.6355 | 7.8300e-003 | 0.0000 | 44.8311 |
| **Maximum** | **4.1592** | **4.0240** | **5.1546** | **0.0155** | **0.9509** | **0.1175** | **1.0683** | **0.2518** | **0.1103** | **0.3621** | **0.0000** | **1,418.6554** | **1,418.6554** | **0.1215** | **0.0000** | **1,421.6925** |

## 2.1 Overall Construction

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2021 | 0.1704 | 1.8234 | 1.1577 | 2.3800e-003 | 0.4141 | 0.0817 | 0.4959 | 0.1798 | 0.0754 | 0.2542 | 0.0000 | 210.7651 | 210.7651 | 0.0600 | 0.0000 | 212.2658 |
| 2022 | 0.5865 | 4.0240 | 5.1546 | 0.0155 | 0.9509 | 0.1175 | 1.0683 | 0.2518 | 0.1103 | 0.3621 | 0.0000 | 1,418.6550 | 1,418.6550 | 0.1215 | 0.0000 | 1,421.6921 |
| 2023 | 0.5190 | 3.2850 | 4.7678 | 0.0147 | 0.8497 | 0.0971 | 0.9468 | 0.2283 | 0.0912 | 0.3195 | 0.0000 | 1,342.4409 | 1,342.4409 | 0.1115 | 0.0000 | 1,345.2287 |
| 2024 | 4.1592 | 0.1313 | 0.2557 | 5.0000e-004 | 0.0221 | 6.3900e-003 | 0.0285 | 5.8700e-003 | 5.9700e-003 | 0.0118 | 0.0000 | 44.6354 | 44.6354 | 7.8300e-003 | 0.0000 | 44.8311 |
| **Maximum** | **4.1592** | **4.0240** | **5.1546** | **0.0155** | **0.9509** | **0.1175** | **1.0683** | **0.2518** | **0.1103** | **0.3621** | **0.0000** | **1,418.6550** | **1,418.6550** | **0.1215** | **0.0000** | **1,421.6921** |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 9-1-2021 | 11-30-2021 | 1.4091 | 1.4091 |
| 2 | 12-1-2021 | 2-28-2022 | 1.3329 | 1.3329 |
| 3 | 3-1-2022 | 5-31-2022 | 1.1499 | 1.1499 |
| 4 | 6-1-2022 | 8-31-2022 | 1.1457 | 1.1457 |
| 5 | 9-1-2022 | 11-30-2022 | 1.1415 | 1.1415 |
| 6 | 12-1-2022 | 2-28-2023 | 1.0278 | 1.0278 |
| 7 | 3-1-2023 | 5-31-2023 | 0.9868 | 0.9868 |
| 8 | 6-1-2023 | 8-31-2023 | 0.9831 | 0.9831 |

| | | | | |
|---|---|---|---|---|
| 9 | 9-1-2023 | 11-30-2023 | 0.9798 | 0.9798 |
| 10 | 12-1-2023 | 2-29-2024 | 2.8757 | 2.8757 |
| 11 | 3-1-2024 | 5-31-2024 | 1.6188 | 1.6188 |
| | | Highest | 2.8757 | 2.8757 |

## 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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| **Total** | **6.8692** | **9.5223** | **30.3407** | **0.0914** | **7.7979** | **0.2260** | **8.0240** | **2.0895** | **0.2219** | **2.3114** | **236.9712** | **12,294.1807** | **12,531.1519** | **15.7904** | **0.1260** | **12,963.4751** |

## 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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Energy | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 3,896.0732 | 3,896.0732 | 0.1303 | 0.0468 | 3,913.2833 |
| Mobile | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 207.8079 | 0.0000 | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 29.1632 | 556.6420 | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| **Total** | **6.8692** | **9.5223** | **30.3407** | **0.0914** | **7.7979** | **0.2260** | **8.0240** | **2.0895** | **0.2219** | **2.3114** | **236.9712** | **12,294.1807** | **12,531.1519** | **15.7904** | **0.1260** | **12,963.4751** |

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

## 3.0 Construction Detail

**Construction Phase**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0012 | 51.0012 | 0.0144 | 0.0000 | 51.3601 |
| **Total** | **0.0475** | **0.4716** | **0.3235** | **5.8000e-004** | **0.0496** | **0.0233** | **0.0729** | **7.5100e-003** | **0.0216** | **0.0291** | **0.0000** | **51.0012** | **51.0012** | **0.0144** | **0.0000** | **51.3601** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.2000e-004 | 5.3000e-004 | 6.0900e-003 | 2.0000e-005 | 1.6800e-003 | 1.0000e-005 | 1.6900e-003 | 4.5000e-004 | 1.0000e-005 | 4.6000e-004 | 0.0000 | 1.5281 | 1.5281 | 5.0000e-005 | 0.0000 | 1.5293 |
| **Total** | **2.6500e-003** | **0.0639** | **0.0209** | **2.0000e-004** | **5.6200e-003** | **2.0000e-004** | **5.8200e-003** | **1.5300e-003** | **1.9000e-004** | **1.7200e-003** | **0.0000** | **18.9847** | **18.9847** | **1.2600e-003** | **0.0000** | **19.0161** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0496 | 0.0000 | 0.0496 | 7.5100e-003 | 0.0000 | 7.5100e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0475 | 0.4716 | 0.3235 | 5.8000e-004 | | 0.0233 | 0.0233 | | 0.0216 | 0.0216 | 0.0000 | 51.0011 | 51.0011 | 0.0144 | 0.0000 | 51.3600 |
| **Total** | **0.0475** | **0.4716** | **0.3235** | **5.8000e-004** | **0.0496** | **0.0233** | **0.0729** | **7.5100e-003** | **0.0216** | **0.0291** | **0.0000** | **51.0011** | **51.0011** | **0.0144** | **0.0000** | **51.3600** |

### 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.9300e-003 | 0.0634 | 0.0148 | 1.8000e-004 | 3.9400e-003 | 1.9000e-004 | 4.1300e-003 | 1.0800e-003 | 1.8000e-004 | 1.2600e-003 | 0.0000 | 17.4566 | 17.4566 | 1.2100e-003 | 0.0000 | 17.4869 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.2000e-004 | 5.3000e-004 | 6.0900e-003 | 2.0000e-005 | 1.6800e-003 | 1.0000e-005 | 1.6900e-003 | 4.5000e-004 | 1.0000e-005 | 4.6000e-004 | 0.0000 | 1.5281 | 1.5281 | 5.0000e-005 | 0.0000 | 1.5293 |
| **Total** | **2.6500e-003** | **0.0639** | **0.0209** | **2.0000e-004** | **5.6200e-003** | **2.0000e-004** | **5.8200e-003** | **1.5300e-003** | **1.9000e-004** | **1.7200e-003** | **0.0000** | **18.9847** | **18.9847** | **1.2600e-003** | **0.0000** | **19.0161** |

### 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7061 |
| **Total** | **0.0389** | **0.4050** | **0.2115** | **3.8000e-004** | **0.1807** | **0.0204** | **0.2011** | **0.0993** | **0.0188** | **0.1181** | **0.0000** | **33.4357** | **33.4357** | **0.0108** | **0.0000** | **33.7061** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |
| **Total** | **5.8000e-004** | **4.3000e-004** | **4.8700e-003** | **1.0000e-005** | **1.3400e-003** | **1.0000e-005** | **1.3500e-003** | **3.6000e-004** | **1.0000e-005** | **3.7000e-004** | **0.0000** | **1.2225** | **1.2225** | **4.0000e-005** | **0.0000** | **1.2234** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1807 | 0.0000 | 0.1807 | 0.0993 | 0.0000 | 0.0993 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0389 | 0.4050 | 0.2115 | 3.8000e-004 | | 0.0204 | 0.0204 | | 0.0188 | 0.0188 | 0.0000 | 33.4357 | 33.4357 | 0.0108 | 0.0000 | 33.7060 |
| **Total** | **0.0389** | **0.4050** | **0.2115** | **3.8000e-004** | **0.1807** | **0.0204** | **0.2011** | **0.0993** | **0.0188** | **0.1181** | **0.0000** | **33.4357** | **33.4357** | **0.0108** | **0.0000** | **33.7060** |

### 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.8000e-004 | 4.3000e-004 | 4.8700e-003 | 1.0000e-005 | 1.3400e-003 | 1.0000e-005 | 1.3500e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.2225 | 1.2225 | 4.0000e-005 | 0.0000 | 1.2234 |
| **Total** | **5.8000e-004** | **4.3000e-004** | **4.8700e-003** | **1.0000e-005** | **1.3400e-003** | **1.0000e-005** | **1.3500e-003** | **3.6000e-004** | **1.0000e-005** | **3.7000e-004** | **0.0000** | **1.2225** | **1.2225** | **4.0000e-005** | **0.0000** | **1.2234** |

### 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5405 | 103.5405 | 0.0335 | 0.0000 | 104.3776 |
| **Total** | **0.0796** | **0.8816** | **0.5867** | **1.1800e-003** | **0.1741** | **0.0377** | **0.2118** | **0.0693** | **0.0347** | **0.1040** | **0.0000** | **103.5405** | **103.5405** | **0.0335** | **0.0000** | **104.3776** |

### 3.4 Grading - 2021

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |
| **Total** | **1.2200e-003** | **9.0000e-004** | **0.0103** | **3.0000e-005** | **2.8300e-003** | **2.0000e-005** | **2.8600e-003** | **7.5000e-004** | **2.0000e-005** | **7.8000e-004** | **0.0000** | **2.5808** | **2.5808** | **8.0000e-005** | **0.0000** | **2.5828** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1741 | 0.0000 | 0.1741 | 0.0693 | 0.0000 | 0.0693 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0796 | 0.8816 | 0.5867 | 1.1800e-003 | | 0.0377 | 0.0377 | | 0.0347 | 0.0347 | 0.0000 | 103.5403 | 103.5403 | 0.0335 | 0.0000 | 104.3775 |
| **Total** | **0.0796** | **0.8816** | **0.5867** | **1.1800e-003** | **0.1741** | **0.0377** | **0.2118** | **0.0693** | **0.0347** | **0.1040** | **0.0000** | **103.5403** | **103.5403** | **0.0335** | **0.0000** | **104.3775** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2200e-003 | 9.0000e-004 | 0.0103 | 3.0000e-005 | 2.8300e-003 | 2.0000e-005 | 2.8600e-003 | 7.5000e-004 | 2.0000e-005 | 7.8000e-004 | 0.0000 | 2.5808 | 2.5808 | 8.0000e-005 | 0.0000 | 2.5828 |
| **Total** | **1.2200e-003** | **9.0000e-004** | **0.0103** | **3.0000e-005** | **2.8300e-003** | **2.0000e-005** | **2.8600e-003** | **7.5000e-004** | **2.0000e-005** | **7.8000e-004** | **0.0000** | **2.5808** | **2.5808** | **8.0000e-005** | **0.0000** | **2.5828** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| **Total** | **0.0127** | **0.1360** | **0.1017** | **2.2000e-004** | **0.0807** | **5.7200e-003** | **0.0865** | **0.0180** | **5.2600e-003** | **0.0233** | **0.0000** | **19.0871** | **19.0871** | **6.1700e-003** | **0.0000** | **19.2414** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |
| **Total** | **2.1000e-004** | **1.5000e-004** | **1.7400e-003** | **1.0000e-005** | **5.2000e-004** | **0.0000** | **5.3000e-004** | **1.4000e-004** | **0.0000** | **1.4000e-004** | **0.0000** | **0.4587** | **0.4587** | **1.0000e-005** | **0.0000** | **0.4590** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0807 | 0.0000 | 0.0807 | 0.0180 | 0.0000 | 0.0180 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0127 | 0.1360 | 0.1017 | 2.2000e-004 | | 5.7200e-003 | 5.7200e-003 | | 5.2600e-003 | 5.2600e-003 | 0.0000 | 19.0871 | 19.0871 | 6.1700e-003 | 0.0000 | 19.2414 |
| **Total** | **0.0127** | **0.1360** | **0.1017** | **2.2000e-004** | **0.0807** | **5.7200e-003** | **0.0865** | **0.0180** | **5.2600e-003** | **0.0233** | **0.0000** | **19.0871** | **19.0871** | **6.1700e-003** | **0.0000** | **19.2414** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.1000e-004 | 1.5000e-004 | 1.7400e-003 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4587 | 0.4587 | 1.0000e-005 | 0.0000 | 0.4590 |
| **Total** | **2.1000e-004** | **1.5000e-004** | **1.7400e-003** | **1.0000e-005** | **5.2000e-004** | **0.0000** | **5.3000e-004** | **1.4000e-004** | **0.0000** | **1.4000e-004** | **0.0000** | **0.4587** | **0.4587** | **1.0000e-005** | **0.0000** | **0.4590** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1324 | 293.1324 | 0.0702 | 0.0000 | 294.8881 |
| **Total** | **0.2158** | **1.9754** | **2.0700** | **3.4100e-003** | | **0.1023** | **0.1023** | | **0.0963** | **0.0963** | **0.0000** | **293.1324** | **293.1324** | **0.0702** | **0.0000** | **294.8881** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.3051 | 0.2164 | 2.5233 | 7.3500e-003 | 0.7557 | 6.2300e-003 | 0.7619 | 0.2007 | 5.7400e-003 | 0.2065 | 0.0000 | 663.9936 | 663.9936 | 0.0187 | 0.0000 | 664.4604 |
| **Total** | **0.3578** | **1.9125** | **2.9812** | **0.0119** | **0.8696** | **9.4100e-003** | **0.8790** | **0.2336** | **8.7800e-003** | **0.2424** | **0.0000** | **1,105.977 1** | **1,105.977 1** | **0.0451** | **0.0000** | **1,107.103 9** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2158 | 1.9754 | 2.0700 | 3.4100e-003 | | 0.1023 | 0.1023 | | 0.0963 | 0.0963 | 0.0000 | 293.1321 | 293.1321 | 0.0702 | 0.0000 | 294.8877 |
| **Total** | **0.2158** | **1.9754** | **2.0700** | **3.4100e-003** | | **0.1023** | **0.1023** | | **0.0963** | **0.0963** | **0.0000** | **293.1321** | **293.1321** | **0.0702** | **0.0000** | **294.8877** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0527 | 1.6961 | 0.4580 | 4.5500e-003 | 0.1140 | 3.1800e-003 | 0.1171 | 0.0329 | 3.0400e-003 | 0.0359 | 0.0000 | 441.9835 | 441.9835 | 0.0264 | 0.0000 | 442.6435 |
| Worker | 0.3051 | 0.2164 | 2.5233 | 7.3500e-003 | 0.7557 | 6.2300e-003 | 0.7619 | 0.2007 | 5.7400e-003 | 0.2065 | 0.0000 | 663.9936 | 663.9936 | 0.0187 | 0.0000 | 664.4604 |
| **Total** | **0.3578** | **1.9125** | **2.9812** | **0.0119** | **0.8696** | **9.4100e-003** | **0.8790** | **0.2336** | **8.7800e-003** | **0.2424** | **0.0000** | **1,105.977 1** | **1,105.977 1** | **0.0451** | **0.0000** | **1,107.103 9** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2789 | 286.2789 | 0.0681 | 0.0000 | 287.9814 |
| **Total** | **0.1942** | **1.7765** | **2.0061** | **3.3300e-003** | | **0.0864** | **0.0864** | | **0.0813** | **0.0813** | **0.0000** | **286.2789** | **286.2789** | **0.0681** | **0.0000** | **287.9814** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.2795 | 0.1910 | 2.2635 | 6.9100e-003 | 0.7377 | 5.9100e-003 | 0.7436 | 0.1960 | 5.4500e-003 | 0.2014 | 0.0000 | 624.5363 | 624.5363 | 0.0164 | 0.0000 | 624.9466 |
| **Total** | **0.3177** | **1.4420** | **2.6646** | **0.0112** | **0.8490** | **7.3700e-003** | **0.8564** | **0.2281** | **6.8500e-003** | **0.2349** | **0.0000** | **1,042.529 4** | **1,042.529 4** | **0.0392** | **0.0000** | **1,043.509 0** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1942 | 1.7765 | 2.0061 | 3.3300e-003 | | 0.0864 | 0.0864 | | 0.0813 | 0.0813 | 0.0000 | 286.2785 | 286.2785 | 0.0681 | 0.0000 | 287.9811 |
| **Total** | **0.1942** | **1.7765** | **2.0061** | **3.3300e-003** | | **0.0864** | **0.0864** | | **0.0813** | **0.0813** | **0.0000** | **286.2785** | **286.2785** | **0.0681** | **0.0000** | **287.9811** |

### 3.5 Building Construction - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0382 | 1.2511 | 0.4011 | 4.3000e-003 | 0.1113 | 1.4600e-003 | 0.1127 | 0.0321 | 1.4000e-003 | 0.0335 | 0.0000 | 417.9930 | 417.9930 | 0.0228 | 0.0000 | 418.5624 |
| Worker | 0.2795 | 0.1910 | 2.2635 | 6.9100e-003 | 0.7377 | 5.9100e-003 | 0.7436 | 0.1960 | 5.4500e-003 | 0.2014 | 0.0000 | 624.5363 | 624.5363 | 0.0164 | 0.0000 | 624.9466 |
| **Total** | **0.3177** | **1.4420** | **2.6646** | **0.0112** | **0.8490** | **7.3700e-003** | **0.8564** | **0.2281** | **6.8500e-003** | **0.2349** | **0.0000** | **1,042.529 4** | **1,042.529 4** | **0.0392** | **0.0000** | **1,043.509 0** |

### 3.6 Paving - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.7100e-003** | **0.0663** | **0.0948** | **1.5000e-004** | | **3.3200e-003** | **3.3200e-003** | | **3.0500e-003** | **3.0500e-003** | **0.0000** | **13.0175** | **13.0175** | **4.2100e-003** | **0.0000** | **13.1227** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |
| **Total** | **2.8000e-004** | **1.9000e-004** | **2.2300e-003** | **1.0000e-005** | **7.3000e-004** | **1.0000e-005** | **7.3000e-004** | **1.9000e-004** | **1.0000e-005** | **2.0000e-004** | **0.0000** | **0.6156** | **0.6156** | **2.0000e-005** | **0.0000** | **0.6160** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.7100e-003 | 0.0663 | 0.0948 | 1.5000e-004 | | 3.3200e-003 | 3.3200e-003 | | 3.0500e-003 | 3.0500e-003 | 0.0000 | 13.0175 | 13.0175 | 4.2100e-003 | 0.0000 | 13.1227 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.7100e-003** | **0.0663** | **0.0948** | **1.5000e-004** | | **3.3200e-003** | **3.3200e-003** | | **3.0500e-003** | **3.0500e-003** | **0.0000** | **13.0175** | **13.0175** | **4.2100e-003** | **0.0000** | **13.1227** |

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 1.9000e-004 | 2.2300e-003 | 1.0000e-005 | 7.3000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 0.0000 | 0.6156 | 0.6156 | 2.0000e-005 | 0.0000 | 0.6160 |
| **Total** | **2.8000e-004** | **1.9000e-004** | **2.2300e-003** | **1.0000e-005** | **7.3000e-004** | **1.0000e-005** | **7.3000e-004** | **1.9000e-004** | **1.0000e-005** | **2.0000e-004** | **0.0000** | **0.6156** | **0.6156** | **2.0000e-005** | **0.0000** | **0.6160** |

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0109** | **0.1048** | **0.1609** | **2.5000e-004** | | **5.1500e-003** | **5.1500e-003** | | **4.7400e-003** | **4.7400e-003** | **0.0000** | **22.0292** | **22.0292** | **7.1200e-003** | **0.0000** | **22.2073** |

### 3.6 Paving - 2024

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |
| **Total** | **4.4000e-004** | **2.9000e-004** | **3.5100e-003** | **1.0000e-005** | **1.2300e-003** | **1.0000e-005** | **1.2400e-003** | **3.3000e-004** | **1.0000e-005** | **3.4000e-004** | **0.0000** | **1.0094** | **1.0094** | **3.0000e-005** | **0.0000** | **1.0100** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0109 | 0.1048 | 0.1609 | 2.5000e-004 | | 5.1500e-003 | 5.1500e-003 | | 4.7400e-003 | 4.7400e-003 | 0.0000 | 22.0292 | 22.0292 | 7.1200e-003 | 0.0000 | 22.2073 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0109** | **0.1048** | **0.1609** | **2.5000e-004** | | **5.1500e-003** | **5.1500e-003** | | **4.7400e-003** | **4.7400e-003** | **0.0000** | **22.0292** | **22.0292** | **7.1200e-003** | **0.0000** | **22.2073** |

### 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 2.9000e-004 | 3.5100e-003 | 1.0000e-005 | 1.2300e-003 | 1.0000e-005 | 1.2400e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0094 | 1.0094 | 3.0000e-005 | 0.0000 | 1.0100 |
| **Total** | **4.4000e-004** | **2.9000e-004** | **3.5100e-003** | **1.0000e-005** | **1.2300e-003** | **1.0000e-005** | **1.2400e-003** | **3.3000e-004** | **1.0000e-005** | **3.4000e-004** | **0.0000** | **1.0094** | **1.0094** | **3.0000e-005** | **0.0000** | **1.0100** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| **Total** | **4.1404** | **0.0213** | **0.0317** | **5.0000e-005** | | **1.0700e-003** | **1.0700e-003** | | **1.0700e-003** | **1.0700e-003** | **0.0000** | **4.4682** | **4.4682** | **2.5000e-004** | **0.0000** | **4.4745** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |
| **Total** | **7.4800e-003** | **4.9300e-003** | **0.0596** | **1.9000e-004** | **0.0209** | **1.6000e-004** | **0.0211** | **5.5500e-003** | **1.5000e-004** | **5.7000e-003** | **0.0000** | **17.1287** | **17.1287** | **4.3000e-004** | **0.0000** | **17.1394** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 4.1372 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.1600e-003 | 0.0213 | 0.0317 | 5.0000e-005 | | 1.0700e-003 | 1.0700e-003 | | 1.0700e-003 | 1.0700e-003 | 0.0000 | 4.4682 | 4.4682 | 2.5000e-004 | 0.0000 | 4.4745 |
| **Total** | **4.1404** | **0.0213** | **0.0317** | **5.0000e-005** | | **1.0700e-003** | **1.0700e-003** | | **1.0700e-003** | **1.0700e-003** | **0.0000** | **4.4682** | **4.4682** | **2.5000e-004** | **0.0000** | **4.4745** |

### 3.7 Architectural Coating - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4800e-003 | 4.9300e-003 | 0.0596 | 1.9000e-004 | 0.0209 | 1.6000e-004 | 0.0211 | 5.5500e-003 | 1.5000e-004 | 5.7000e-003 | 0.0000 | 17.1287 | 17.1287 | 4.3000e-004 | 0.0000 | 17.1394 |
| **Total** | **7.4800e-003** | **4.9300e-003** | **0.0596** | **1.9000e-004** | **0.0209** | **1.6000e-004** | **0.0211** | **5.5500e-003** | **1.5000e-004** | **5.7000e-003** | **0.0000** | **17.1287** | **17.1287** | **4.3000e-004** | **0.0000** | **17.1394** |

## 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 | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |
| Unmitigated | 1.5857 | 7.9962 | 19.1834 | 0.0821 | 7.7979 | 0.0580 | 7.8559 | 2.0895 | 0.0539 | 2.1434 | 0.0000 | 7,620.4986 | 7,620.4986 | 0.3407 | 0.0000 | 7,629.0162 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2,512.6465 | 2,512.6465 | 0.1037 | 0.0215 | 2,521.6356 |
| NaturalGas Mitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |
| NaturalGas Unmitigated | 0.1398 | 1.2312 | 0.7770 | 7.6200e-003 | | 0.0966 | 0.0966 | | 0.0966 | 0.0966 | 0.0000 | 1,383.4267 | 1,383.4267 | 0.0265 | 0.0254 | 1,391.6478 |

**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 | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.8036 | 92.8036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| **Total** | | **0.1398** | **1.2312** | **0.7770** | **7.6200e-003** | | **0.0966** | **0.0966** | | **0.0966** | **0.0966** | **0.0000** | **1,383.4268** | **1,383.4268** | **0.0265** | **0.0254** | **1,391.6478** |

**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 | | | | | |
| Apartments Low Rise | 408494 | 2.2000e-003 | 0.0188 | 8.0100e-003 | 1.2000e-004 | | 1.5200e-003 | 1.5200e-003 | | 1.5200e-003 | 1.5200e-003 | 0.0000 | 21.7988 | 21.7988 | 4.2000e-004 | 4.0000e-004 | 21.9284 |
| Apartments Mid Rise | 1.30613e+007 | 0.0704 | 0.6018 | 0.2561 | 3.8400e-003 | | 0.0487 | 0.0487 | | 0.0487 | 0.0487 | 0.0000 | 696.9989 | 696.9989 | 0.0134 | 0.0128 | 701.1408 |
| General Office Building | 468450 | 2.5300e-003 | 0.0230 | 0.0193 | 1.4000e-004 | | 1.7500e-003 | 1.7500e-003 | | 1.7500e-003 | 1.7500e-003 | 0.0000 | 24.9983 | 24.9983 | 4.8000e-004 | 4.6000e-004 | 25.1468 |
| High Turnover (Sit Down Restaurant) | 8.30736e+006 | 0.0448 | 0.4072 | 0.3421 | 2.4400e-003 | | 0.0310 | 0.0310 | | 0.0310 | 0.0310 | 0.0000 | 443.3124 | 443.3124 | 8.5000e-003 | 8.1300e-003 | 445.9468 |
| Hotel | 1.74095e+006 | 9.3900e-003 | 0.0853 | 0.0717 | 5.1000e-004 | | 6.4900e-003 | 6.4900e-003 | | 6.4900e-003 | 6.4900e-003 | 0.0000 | 92.8036 | 92.8036 | 1.7800e-003 | 1.7000e-003 | 93.4557 |
| Quality Restaurant | 1.84608e+006 | 9.9500e-003 | 0.0905 | 0.0760 | 5.4000e-004 | | 6.8800e-003 | 6.8800e-003 | | 6.8800e-003 | 6.8800e-003 | 0.0000 | 98.5139 | 98.5139 | 1.8900e-003 | 1.8100e-003 | 99.0993 |
| Regional Shopping Center | 91840 | 5.0000e-004 | 4.5000e-003 | 3.7800e-003 | 3.0000e-005 | | 3.4000e-004 | 3.4000e-004 | | 3.4000e-004 | 3.4000e-004 | 0.0000 | 4.9009 | 4.9009 | 9.0000e-005 | 9.0000e-005 | 4.9301 |
| **Total** | | **0.1398** | **1.2312** | **0.7770** | **7.6200e-003** | | **0.0966** | **0.0966** | | **0.0966** | **0.0966** | **0.0000** | **1,383.4268** | **1,383.4268** | **0.0265** | **0.0254** | **1,391.6478** |

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.84697e+006 | 1,257.5879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| **Total** | | **2,512.6465** | **0.1037** | **0.0215** | **2,521.6356** |

**5.3 Energy by Land Use - Electricity**

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Low Rise | 106010 | 33.7770 | 1.3900e-003 | 2.9000e-004 | 33.8978 |
| Apartments Mid Rise | 3.84697e+006 | 1,257.6879 | 0.0519 | 0.0107 | 1,262.0869 |
| General Office Building | 584550 | 186.2502 | 7.6900e-003 | 1.5900e-003 | 186.9165 |
| High Turnover (Sit Down Restaurant) | 1.58904e+006 | 506.3022 | 0.0209 | 4.3200e-003 | 508.1135 |
| Hotel | 550308 | 175.3399 | 7.2400e-003 | 1.5000e-003 | 175.9672 |
| Quality Restaurant | 353120 | 112.5116 | 4.6500e-003 | 9.6000e-004 | 112.9141 |
| Regional Shopping Center | 756000 | 240.8778 | 9.9400e-003 | 2.0600e-003 | 241.7395 |
| **Total** | | **2,512.6465** | **0.1037** | **0.0215** | **2,521.6356** |

**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 | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |
| Unmitigated | 5.1437 | 0.2950 | 10.3804 | 1.6700e-003 | | 0.0714 | 0.0714 | | 0.0714 | 0.0714 | 0.0000 | 220.9670 | 220.9670 | 0.0201 | 3.7400e-003 | 222.5835 |

### 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 | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1168 | 204.1168 | 3.9100e-003 | 3.7400e-003 | 205.3295 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| **Total** | **5.1437** | **0.2950** | **10.3804** | **1.6600e-003** | | **0.0714** | **0.0714** | | **0.0714** | **0.0714** | **0.0000** | **220.9670** | **220.9670** | **0.0201** | **3.7400e-003** | **222.5835** |

**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 | 0.4137 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.3998 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0206 | 0.1763 | 0.0750 | 1.1200e-003 | | 0.0143 | 0.0143 | | 0.0143 | 0.0143 | 0.0000 | 204.1166 | 204.1166 | 3.9100e-003 | 3.7400e-003 | 205.3296 |
| Landscaping | 0.3096 | 0.1187 | 10.3054 | 5.4000e-004 | | 0.0572 | 0.0572 | | 0.0572 | 0.0572 | 0.0000 | 16.8504 | 16.8504 | 0.0161 | 0.0000 | 17.2540 |
| **Total** | **5.1437** | **0.2950** | **10.3804** | **1.6600e-003** | | **0.0714** | **0.0714** | | **0.0714** | **0.0714** | **0.0000** | **220.9670** | **220.9670** | **0.0201** | **3.7400e-003** | **222.5835** |

## 7.0 Water Detail

**7.1 Mitigation Measures Water**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |
| Unmitigated | 585.8052 | 3.0183 | 0.0755 | 683.7567 |

**7.2 Water by Land Use**

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.8200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| **Total** | | **585.8052** | **3.0183** | **0.0755** | **683.7567** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Low Rise | 1.62885 / 1.02688 | 10.9095 | 0.0535 | 1.3400e-003 | 12.6471 |
| Apartments Mid Rise | 63.5252 / 40.0485 | 425.4719 | 2.0867 | 0.0523 | 493.2363 |
| General Office Building | 7.99802 / 4.90201 | 53.0719 | 0.2627 | 6.5900e-003 | 61.6019 |
| High Turnover (Sit Down Restaurant) | 10.9272 / 0.697482 | 51.2702 | 0.3580 | 8.9200e-003 | 62.8482 |
| Hotel | 1.26834 / 0.140927 | 6.1633 | 0.0416 | 1.0300e-003 | 7.5079 |
| Quality Restaurant | 2.42827 / 0.154996 | 11.3934 | 0.0796 | 1.9600e-003 | 13.9663 |
| Regional Shopping Center | 4.14806 / 2.54236 | 27.5250 | 0.1363 | 3.4200e-003 | 31.9490 |
| **Total** | | **585.8052** | **3.0183** | **0.0755** | **683.7567** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |
| Unmitigated | 207.8079 | 12.2811 | 0.0000 | 514.8354 |

**8.2 Waste by Land Use**

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| **Total** | | **207.8079** | **12.2811** | **0.0000** | **514.8354** |

### 8.2 Waste by Land Use

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Low Rise | 11.5 | 2.3344 | 0.1380 | 0.0000 | 5.7834 |
| Apartments Mid Rise | 448.5 | 91.0415 | 5.3804 | 0.0000 | 225.5513 |
| General Office Building | 41.85 | 8.4952 | 0.5021 | 0.0000 | 21.0464 |
| High Turnover (Sit Down Restaurant) | 428.4 | 86.9613 | 5.1393 | 0.0000 | 215.4430 |
| Hotel | 27.38 | 5.5579 | 0.3285 | 0.0000 | 13.7694 |
| Quality Restaurant | 7.3 | 1.4818 | 0.0876 | 0.0000 | 3.6712 |
| Regional Shopping Center | 58.8 | 11.9359 | 0.7054 | 0.0000 | 29.5706 |
| **Total** | | **207.8079** | **12.2811** | **0.0000** | **514.8354** |

### 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**

**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2561 | 46.4415 | 31.4494 | 0.0636 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,163.4166 | 6,163.4166 | 1.9475 | 0.0000 | 6,212.1039 |
| 2022 | 4.5441 | 38.8811 | 40.8776 | 0.1240 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |
| 2023 | 4.1534 | 25.7658 | 38.7457 | 0.1206 | 7.0088 | 0.7592 | 7.7679 | 1.8799 | 0.7136 | 2.5935 | 0.0000 | 12,150.4890 | 12,150.4890 | 0.9589 | 0.0000 | 12,174.4615 |
| 2024 | 237.0219 | 9.5478 | 14.9642 | 0.0239 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,313.1808 | 2,313.1808 | 0.7166 | 0.0000 | 2,331.0956 |
| **Maximum** | **237.0219** | **46.4415** | **40.8776** | **0.1240** | **18.2032** | **2.0456** | **20.2488** | **9.9670** | **1.8820** | **11.8490** | **0.0000** | **12,493.4403** | **12,493.4403** | **1.9485** | **0.0000** | **12,518.5707** |

**2.1 Overall Construction (Maximum Daily Emission)**

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2561 | 46.4415 | 31.4494 | 0.0636 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,163.4166 | 6,163.4166 | 1.9475 | 0.0000 | 6,212.1039 |
| 2022 | 4.5441 | 38.8811 | 40.8776 | 0.1240 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,493.4403 | 12,493.4403 | 1.9485 | 0.0000 | 12,518.5707 |
| 2023 | 4.1534 | 25.7658 | 38.7457 | 0.1206 | 7.0088 | 0.7592 | 7.7679 | 1.8799 | 0.7136 | 2.5935 | 0.0000 | 12,150.4890 | 12,150.4890 | 0.9589 | 0.0000 | 12,174.4615 |
| 2024 | 237.0219 | 9.5478 | 14.9642 | 0.0239 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,313.1808 | 2,313.1808 | 0.7166 | 0.0000 | 2,331.0955 |
| **Maximum** | **237.0219** | **46.4415** | **40.8776** | **0.1240** | **18.2032** | **2.0456** | **20.2488** | **9.9670** | **1.8820** | **11.8490** | **0.0000** | **12,493.4403** | **12,493.4403** | **1.9485** | **0.0000** | **12,518.5707** |

| | ROG | NOx | 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 |

**2.2 Overall Operational**

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| **Total** | **41.1168** | **67.2262** | **207.5497** | **0.6278** | **45.9592** | **2.4626** | **48.4217** | **12.2950** | **2.4385** | **14.7336** | **0.0000** | **76,811.1816** | **76,811.1816** | **2.8282** | **0.4832** | **77,025.8786** |

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| **Total** | **41.1168** | **67.2262** | **207.5497** | **0.6278** | **45.9592** | **2.4626** | **48.4217** | **12.2950** | **2.4385** | **14.7336** | **0.0000** | **76,811.1816** | **76,811.1816** | **2.8282** | **0.4832** | **77,025.8786** |

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

### 3.1 Mitigation Measures Construction

### 3.2 Demolition - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0487 | 0.0313 | 0.4282 | 1.1800e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 117.2799 | 117.2799 | 3.5200e-003 | | 117.3678 |
| **Total** | **0.1760** | **4.1265** | **1.3884** | **0.0131** | **0.3810** | **0.0135** | **0.3946** | **0.1034** | **0.0129** | **0.1163** | | **1,409.5212** | **1,409.5212** | **0.0912** | | **1,411.8015** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | **0.0000** | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

### 3.2 Demolition - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1273 | 4.0952 | 0.9602 | 0.0119 | 0.2669 | 0.0126 | 0.2795 | 0.0732 | 0.0120 | 0.0852 | | 1,292.2413 | 1,292.2413 | 0.0877 | | 1,294.4337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0487 | 0.0313 | 0.4282 | 1.1800e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 117.2799 | 117.2799 | 3.5200e-003 | | 117.3678 |
| **Total** | **0.1760** | **4.1265** | **1.3884** | **0.0131** | **0.3810** | **0.0135** | **0.3946** | **0.1034** | **0.0129** | **0.1163** | | **1,409.5212** | **1,409.5212** | **0.0912** | | **1,411.8015** |

### 3.3 Site Preparation - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |
| **Total** | **0.0584** | **0.0375** | **0.5139** | **1.4100e-003** | **0.1369** | **1.1400e-003** | **0.1381** | **0.0363** | **1.0500e-003** | **0.0374** | | **140.7359** | **140.7359** | **4.2200e-003** | | **140.8414** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | **0.0000** | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

### 3.3 Site Preparation - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0584 | 0.0375 | 0.5139 | 1.4100e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 140.7359 | 140.7359 | 4.2200e-003 | | 140.8414 |
| **Total** | **0.0584** | **0.0375** | **0.5139** | **1.4100e-003** | **0.1369** | **1.1400e-003** | **0.1381** | **0.0363** | **1.0500e-003** | **0.0374** | | **140.7359** | **140.7359** | **4.2200e-003** | | **140.8414** |

### 3.4 Grading - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |
| **Total** | **0.0649** | **0.0417** | **0.5710** | **1.5700e-003** | **0.1521** | **1.2700e-003** | **0.1534** | **0.0404** | **1.1700e-003** | **0.0415** | | **156.3732** | **156.3732** | **4.6900e-003** | | **156.4904** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | **0.0000** | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0649 | 0.0417 | 0.5710 | 1.5700e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 156.3732 | 156.3732 | 4.6900e-003 | | 156.4904 |
| **Total** | **0.0649** | **0.0417** | **0.5710** | **1.5700e-003** | **0.1521** | **1.2700e-003** | **0.1534** | **0.0404** | **1.1700e-003** | **0.0415** | | **156.3732** | **156.3732** | **4.6900e-003** | | **156.4904** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |
| **Total** | **0.0607** | **0.0376** | **0.5263** | **1.5100e-003** | **0.1521** | **1.2300e-003** | **0.1534** | **0.0404** | **1.1300e-003** | **0.0415** | | **150.8754** | **150.8754** | **4.2400e-003** | | **150.9813** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | **0.0000** | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0607 | 0.0376 | 0.5263 | 1.5100e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 150.8754 | 150.8754 | 4.2400e-003 | | 150.9813 |
| **Total** | **0.0607** | **0.0376** | **0.5263** | **1.5100e-003** | **0.1521** | **1.2300e-003** | **0.1534** | **0.0404** | **1.1300e-003** | **0.0415** | | **150.8754** | **150.8754** | **4.2400e-003** | | **150.9813** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.5482 | 3,896.5482 | 0.2236 | | 3,902.1384 |
| Worker | 2.4299 | 1.5074 | 21.0801 | 0.0607 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 6,042.5585 | 6,042.5585 | 0.1697 | | 6,046.8000 |
| **Total** | **2.8378** | **14.7106** | **24.5142** | **0.0971** | **7.0087** | **0.0741** | **7.0828** | **1.8799** | **0.0691** | **1.9490** | | **9,939.1067** | **9,939.1067** | **0.3933** | | **9,948.9384** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4079 | 13.2032 | 3.4341 | 0.0364 | 0.9155 | 0.0248 | 0.9404 | 0.2636 | 0.0237 | 0.2873 | | 3,896.5482 | 3,896.5482 | 0.2236 | | 3,902.1384 |
| Worker | 2.4299 | 1.5074 | 21.0801 | 0.0607 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 6,042.5585 | 6,042.5585 | 0.1697 | | 6,046.8000 |
| Total | **2.8378** | **14.7106** | **24.5142** | **0.0971** | **7.0087** | **0.0741** | **7.0828** | **1.8799** | **0.0691** | **1.9490** | | **9,939.1067** | **9,939.1067** | **0.3933** | | **9,948.9384** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.8762 | 3,773.8762 | 0.1982 | | 3,778.8300 |
| Worker | 2.2780 | 1.3628 | 19.4002 | 0.0584 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,821.4028 | 5,821.4028 | 0.1529 | | 5,825.2254 |
| **Total** | **2.5807** | **11.3809** | **22.5017** | **0.0936** | **7.0088** | **0.0595** | **7.0682** | **1.8799** | **0.0552** | **1.9350** | | **9,595.2790** | **9,595.2790** | **0.3511** | | **9,604.0554** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3027 | 10.0181 | 3.1014 | 0.0352 | 0.9156 | 0.0116 | 0.9271 | 0.2636 | 0.0111 | 0.2747 | | 3,773.8762 | 3,773.8762 | 0.1982 | | 3,778.8300 |
| Worker | 2.2780 | 1.3628 | 19.4002 | 0.0584 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,821.4028 | 5,821.4028 | 0.1529 | | 5,825.2254 |
| Total | **2.5807** | **11.3809** | **22.5017** | **0.0936** | **7.0088** | **0.0595** | **7.0682** | **1.8799** | **0.0552** | **1.9350** | | **9,595.2790** | **9,595.2790** | **0.3511** | | **9,604.0554** |

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |
| **Total** | **0.0427** | **0.0255** | **0.3633** | **1.0900e-003** | **0.1141** | **9.0000e-004** | **0.1150** | **0.0303** | **8.3000e-004** | **0.0311** | | **109.0150** | **109.0150** | **2.8600e-003** | | **109.0866** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | **0.0000** | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0427 | 0.0255 | 0.3633 | 1.0900e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 109.0150 | 109.0150 | 2.8600e-003 | | 109.0866 |
| **Total** | **0.0427** | **0.0255** | **0.3633** | **1.0900e-003** | **0.1141** | **9.0000e-004** | **0.1150** | **0.0303** | **8.3000e-004** | **0.0311** | | **109.0150** | **109.0150** | **2.8600e-003** | | **109.0866** |

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |
| **Total** | **0.0403** | **0.0233** | **0.3384** | **1.0600e-003** | **0.1141** | **8.8000e-004** | **0.1150** | **0.0303** | **8.1000e-004** | **0.0311** | | **105.6336** | **105.6336** | **2.6300e-003** | | **105.6992** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

### 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0403 | 0.0233 | 0.3384 | 1.0600e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 105.6336 | 105.6336 | 2.6300e-003 | | 105.6992 |
| **Total** | **0.0403** | **0.0233** | **0.3384** | **1.0600e-003** | **0.1141** | **8.8000e-004** | **0.1150** | **0.0303** | **8.1000e-004** | **0.0311** | | **105.6336** | **105.6336** | **2.6300e-003** | | **105.6992** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |
| **Total** | **0.4296** | **0.2481** | **3.6098** | **0.0113** | **1.2171** | **9.4300e-003** | **1.2266** | **0.3229** | **8.6800e-003** | **0.3315** | | **1,126.7583** | **1,126.7583** | **0.0280** | | **1,127.4583** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4296 | 0.2481 | 3.6098 | 0.0113 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,126.7583 | 1,126.7583 | 0.0280 | | 1,127.4583 |
| **Total** | **0.4296** | **0.2481** | **3.6098** | **0.0113** | **1.2171** | **9.4300e-003** | **1.2266** | **0.3229** | **8.6800e-003** | **0.3315** | | **1,126.7583** | **1,126.7583** | **0.0280** | | **1,127.4583** |

## 4.0 Operational Detail - Mobile

**4.1 Mitigation Measures Mobile**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |
| Unmitigated | 9.8489 | 45.4304 | 114.8495 | 0.4917 | 45.9592 | 0.3360 | 46.2951 | 12.2950 | 0.3119 | 12.6070 | | 50,306.6034 | 50,306.6034 | 2.1807 | | 50,361.1208 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4768.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**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 | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 36.7843 | 0.3959 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7589 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

**6.2 Area by SubCategory**

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.8500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

**11.0 Vegetation**

**Village South Specific Plan (Proposed)**

**Los Angeles-South Coast County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 45.00 | 1000sqft | 1.03 | 45,000.00 | 0 |
| High Turnover (Sit Down Restaurant) | 36.00 | 1000sqft | 0.83 | 36,000.00 | 0 |
| Hotel | 50.00 | Room | 1.67 | 72,600.00 | 0 |
| Quality Restaurant | 8.00 | 1000sqft | 0.18 | 8,000.00 | 0 |
| Apartments Low Rise | 25.00 | Dwelling Unit | 1.56 | 25,000.00 | 72 |
| Apartments Mid Rise | 975.00 | Dwelling Unit | 25.66 | 975,000.00 | 2789 |
| Regional Shopping Center | 56.00 | 1000sqft | 1.29 | 56,000.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 33 |
| **Climate Zone** | 9 | | | **Operational Year** | 2028 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 702.44 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | FireplaceWoodMass | 1,019.20 | 0.00 |
| tblFireplaces | NumberWood | 1.25 | 0.00 |
| tblFireplaces | NumberWood | 48.75 | 0.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblTripsAndVMT | WorkerTripLength | 14.70 | 10.00 |
| tblVehicleTrips | ST_TR | 7.16 | 6.17 |
| tblVehicleTrips | ST_TR | 6.39 | 3.87 |
| tblVehicleTrips | ST_TR | 2.46 | 1.39 |
| tblVehicleTrips | ST_TR | 158.37 | 79.82 |

| | | | |
|---|---|---|---|
| tblVehicleTrips | ST_TR | 8.19 | 3.75 |
| tblVehicleTrips | ST_TR | 94.36 | 63.99 |
| tblVehicleTrips | ST_TR | 49.97 | 10.74 |
| tblVehicleTrips | SU_TR | 6.07 | 6.16 |
| tblVehicleTrips | SU_TR | 5.86 | 4.18 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 131.84 | 78.27 |
| tblVehicleTrips | SU_TR | 5.95 | 3.20 |
| tblVehicleTrips | SU_TR | 72.16 | 57.65 |
| tblVehicleTrips | SU_TR | 25.24 | 6.39 |
| tblVehicleTrips | WD_TR | 6.59 | 5.83 |
| tblVehicleTrips | WD_TR | 6.65 | 4.13 |
| tblVehicleTrips | WD_TR | 11.03 | 6.41 |
| tblVehicleTrips | WD_TR | 127.15 | 65.80 |
| tblVehicleTrips | WD_TR | 8.17 | 3.84 |
| tblVehicleTrips | WD_TR | 89.95 | 62.64 |
| tblVehicleTrips | WD_TR | 42.70 | 9.43 |
| tblWoodstoves | NumberCatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberCatalytic | 48.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 1.25 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 48.75 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveDayYear | 25.00 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |
| tblWoodstoves | WoodstoveWoodMass | 999.60 | 0.00 |

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2621 | 46.4460 | 31.4068 | 0.0635 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,154.3377 | 6,154.3377 | 1.9472 | 0.0000 | 6,203.0186 |
| 2022 | 4.7966 | 38.8851 | 39.6338 | 0.1195 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.8013 |
| 2023 | 4.3939 | 25.8648 | 37.5031 | 0.1162 | 7.0088 | 0.7598 | 7.7685 | 1.8799 | 0.7142 | 2.5940 | 0.0000 | 11,710.4080 | 11,710.4080 | 0.9617 | 0.0000 | 11,734.4497 |
| 2024 | 237.0656 | 9.6503 | 14.9372 | 0.0238 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,307.0517 | 2,307.0517 | 0.7164 | 0.0000 | 2,324.9627 |
| **Maximum** | **237.0656** | **46.4460** | **39.6338** | **0.1195** | **18.2032** | **2.0456** | **20.2488** | **9.9670** | **1.8820** | **11.8490** | **0.0000** | **12,035.3440** | **12,035.3440** | **1.9482** | **0.0000** | **12,060.8013** |

**2.1 Overall Construction (Maximum Daily Emission)**

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2021 | 4.2621 | 46.4460 | 31.4068 | 0.0635 | 18.2032 | 2.0456 | 20.2488 | 9.9670 | 1.8820 | 11.8490 | 0.0000 | 6,154.3377 | 6,154.3377 | 1.9472 | 0.0000 | 6,203.0186 |
| 2022 | 4.7966 | 38.8851 | 39.6338 | 0.1195 | 8.8255 | 1.6361 | 10.4616 | 3.6369 | 1.5052 | 5.1421 | 0.0000 | 12,035.3440 | 12,035.3440 | 1.9482 | 0.0000 | 12,060.8013 |
| 2023 | 4.3939 | 25.8648 | 37.5031 | 0.1162 | 7.0088 | 0.7598 | 7.7685 | 1.8799 | 0.7142 | 2.5940 | 0.0000 | 11,710.4080 | 11,710.4080 | 0.9617 | 0.0000 | 11,734.4497 |
| 2024 | 237.0656 | 9.6503 | 14.9372 | 0.0238 | 1.2171 | 0.4694 | 1.2875 | 0.3229 | 0.4319 | 0.4621 | 0.0000 | 2,307.0517 | 2,307.0517 | 0.7164 | 0.0000 | 2,324.9627 |
| **Maximum** | **237.0656** | **46.4460** | **39.6338** | **0.1195** | **18.2032** | **2.0456** | **20.2488** | **9.9670** | **1.8820** | **11.8490** | **0.0000** | **12,035.3440** | **12,035.3440** | **1.9482** | **0.0000** | **12,060.8013** |

| | ROG | NOx | 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 |

**2.2 Overall Operational**

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| **Total** | **40.7912** | **67.7872** | **202.7424** | **0.6043** | **45.9592** | **2.4640** | **48.4231** | **12.2950** | **2.4399** | **14.7349** | **0.0000** | **74,422.3787** | **74,422.3787** | **2.8429** | **0.4832** | **74,637.4417** |

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Energy | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| Mobile | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| **Total** | **40.7912** | **67.7872** | **202.7424** | **0.6043** | **45.9592** | **2.4640** | **48.4231** | **12.2950** | **2.4399** | **14.7349** | **0.0000** | **74,422.3787** | **74,422.3787** | **2.8429** | **0.4832** | **74,637.4417** |

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

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

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 9/1/2021 | 10/12/2021 | 5 | 30 | |
| 2 | Site Preparation | Site Preparation | 10/13/2021 | 11/9/2021 | 5 | 20 | |
| 3 | Grading | Grading | 11/10/2021 | 1/11/2022 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 1/12/2022 | 12/12/2023 | 5 | 500 | |
| 5 | Paving | Paving | 12/13/2023 | 1/30/2024 | 5 | 35 | |
| 6 | Architectural Coating | Architectural Coating | 1/31/2024 | 3/19/2024 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 112.5**

**Acres of Paving: 0**

**Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 6 | 15.00 | 0.00 | 458.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 801.00 | 143.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 160.00 | 0.00 | 0.00 | 10.00 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

**3.1 Mitigation Measures Construction**

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0532 | 0.0346 | 0.3963 | 1.1100e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 110.4707 | 110.4707 | 3.3300e-003 | | 110.5539 |
| **Total** | **0.1835** | **4.1800** | **1.4144** | **0.0128** | **0.3810** | **0.0137** | **0.3948** | **0.1034** | **0.0131** | **0.1165** | | **1,380.3262** | **1,380.3262** | **0.0941** | | **1,382.6791** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.3074 | 0.0000 | 3.3074 | 0.5008 | 0.0000 | 0.5008 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.1651 | 31.4407 | 21.5650 | 0.0388 | | 1.5513 | 1.5513 | | 1.4411 | 1.4411 | 0.0000 | 3,747.9449 | 3,747.9449 | 1.0549 | | 3,774.3174 |
| **Total** | **3.1651** | **31.4407** | **21.5650** | **0.0388** | **3.3074** | **1.5513** | **4.8588** | **0.5008** | **1.4411** | **1.9419** | **0.0000** | **3,747.9449** | **3,747.9449** | **1.0549** | | **3,774.3174** |

**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1304 | 4.1454 | 1.0182 | 0.0117 | 0.2669 | 0.0128 | 0.2797 | 0.0732 | 0.0122 | 0.0854 | | 1,269.8555 | 1,269.8555 | 0.0908 | | 1,272.1252 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0532 | 0.0346 | 0.3963 | 1.1100e-003 | 0.1141 | 9.5000e-004 | 0.1151 | 0.0303 | 8.8000e-004 | 0.0311 | | 110.4707 | 110.4707 | 3.3300e-003 | | 110.5539 |
| **Total** | **0.1835** | **4.1800** | **1.4144** | **0.0128** | **0.3810** | **0.0137** | **0.3948** | **0.1034** | **0.0131** | **0.1165** | | **1,380.3262** | **1,380.3262** | **0.0941** | | **1,382.6791** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |
| **Total** | **0.0638** | **0.0415** | **0.4755** | **1.3300e-003** | **0.1369** | **1.1400e-003** | **0.1381** | **0.0363** | **1.0500e-003** | **0.0374** | | **132.5649** | **132.5649** | **3.9900e-003** | | **132.6646** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.8882 | 40.4971 | 21.1543 | 0.0380 | | 2.0445 | 2.0445 | | 1.8809 | 1.8809 | 0.0000 | 3,685.6569 | 3,685.6569 | 1.1920 | | 3,715.4573 |
| **Total** | **3.8882** | **40.4971** | **21.1543** | **0.0380** | **18.0663** | **2.0445** | **20.1107** | **9.9307** | **1.8809** | **11.8116** | **0.0000** | **3,685.6569** | **3,685.6569** | **1.1920** | | **3,715.4573** |

**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0638 | 0.0415 | 0.4755 | 1.3300e-003 | 0.1369 | 1.1400e-003 | 0.1381 | 0.0363 | 1.0500e-003 | 0.0374 | | 132.5649 | 132.5649 | 3.9900e-003 | | 132.6646 |
| **Total** | **0.0638** | **0.0415** | **0.4755** | **1.3300e-003** | **0.1369** | **1.1400e-003** | **0.1381** | **0.0363** | **1.0500e-003** | **0.0374** | | **132.5649** | **132.5649** | **3.9900e-003** | | **132.6646** |

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |
| **Total** | **0.0709** | **0.0462** | **0.5284** | **1.4800e-003** | **0.1521** | **1.2700e-003** | **0.1534** | **0.0404** | **1.1700e-003** | **0.0415** | | **147.2943** | **147.2943** | **4.4300e-003** | | **147.4051** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.1912 | 46.3998 | 30.8785 | 0.0620 | | 1.9853 | 1.9853 | | 1.8265 | 1.8265 | 0.0000 | 6,007.0434 | 6,007.0434 | 1.9428 | | 6,055.6134 |
| **Total** | **4.1912** | **46.3998** | **30.8785** | **0.0620** | **8.6733** | **1.9853** | **10.6587** | **3.5965** | **1.8265** | **5.4230** | **0.0000** | **6,007.0434** | **6,007.0434** | **1.9428** | | **6,055.6134** |

**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0709 | 0.0462 | 0.5284 | 1.4800e-003 | 0.1521 | 1.2700e-003 | 0.1534 | 0.0404 | 1.1700e-003 | 0.0415 | | 147.2943 | 147.2943 | 4.4300e-003 | | 147.4051 |
| **Total** | **0.0709** | **0.0462** | **0.5284** | **1.4800e-003** | **0.1521** | **1.2700e-003** | **0.1534** | **0.0404** | **1.1700e-003** | **0.0415** | | **147.2943** | **147.2943** | **4.4300e-003** | | **147.4051** |

**3.4 Grading - 2022**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

**3.4 Grading - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |
| **Total** | **0.0665** | **0.0416** | **0.4861** | **1.4300e-003** | **0.1521** | **1.2300e-003** | **0.1534** | **0.0404** | **1.1300e-003** | **0.0415** | | **142.1207** | **142.1207** | **4.0000e-003** | | **142.2207** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.6248 | 38.8435 | 29.0415 | 0.0621 | | 1.6349 | 1.6349 | | 1.5041 | 1.5041 | 0.0000 | 6,011.4105 | 6,011.4105 | 1.9442 | | 6,060.0158 |
| **Total** | **3.6248** | **38.8435** | **29.0415** | **0.0621** | **8.6733** | **1.6349** | **10.3082** | **3.5965** | **1.5041** | **5.1006** | **0.0000** | **6,011.4105** | **6,011.4105** | **1.9442** | | **6,060.0158** |

### 3.4 Grading - 2022

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0665 | 0.0416 | 0.4861 | 1.4300e-003 | 0.1521 | 1.2300e-003 | 0.1534 | 0.0404 | 1.1300e-003 | 0.0415 | | 142.1207 | 142.1207 | 4.0000e-003 | | 142.2207 |
| **Total** | **0.0665** | **0.0416** | **0.4861** | **1.4300e-003** | **0.1521** | **1.2300e-003** | **0.1534** | **0.0404** | **1.1300e-003** | **0.0415** | | **142.1207** | **142.1207** | **4.0000e-003** | | **142.2207** |

### 3.5 Building Construction - 2022

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.0750 | 3,789.0750 | 0.2381 | | 3,795.0283 |
| Worker | 2.6620 | 1.6677 | 19.4699 | 0.0571 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 5,691.9354 | 5,691.9354 | 0.1602 | | 5,695.9408 |
| **Total** | **3.0904** | **14.8350** | **23.2704** | **0.0926** | **7.0087** | **0.0749** | **7.0836** | **1.8799** | **0.0699** | **1.9498** | | **9,481.0104** | **9,481.0104** | **0.3984** | | **9,490.9691** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 |
| **Total** | **1.7062** | **15.6156** | **16.3634** | **0.0269** | | **0.8090** | **0.8090** | | **0.7612** | **0.7612** | **0.0000** | **2,554.3336** | **2,554.3336** | **0.6120** | | **2,569.6322** |

**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.4284 | 13.1673 | 3.8005 | 0.0354 | 0.9155 | 0.0256 | 0.9412 | 0.2636 | 0.0245 | 0.2881 | | 3,789.0750 | 3,789.0750 | 0.2381 | | 3,795.0283 |
| Worker | 2.6620 | 1.6677 | 19.4699 | 0.0571 | 6.0932 | 0.0493 | 6.1425 | 1.6163 | 0.0454 | 1.6617 | | 5,691.9354 | 5,691.9354 | 0.1602 | | 5,695.9408 |
| **Total** | **3.0904** | **14.8350** | **23.2704** | **0.0926** | **7.0087** | **0.0749** | **7.0836** | **1.8799** | **0.0699** | **1.9498** | | **9,481.0104** | **9,481.0104** | **0.3984** | | **9,490.9691** |

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.4007 | 3,671.4007 | 0.2096 | | 3,676.6417 |
| Worker | 2.5029 | 1.5073 | 17.8820 | 0.0550 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,483.7974 | 5,483.7974 | 0.1442 | | 5,487.4020 |
| **Total** | **2.8211** | **11.4799** | **21.2591** | **0.0893** | **7.0088** | **0.0601** | **7.0688** | **1.8799** | **0.0557** | **1.9356** | | **9,155.1981** | **9,155.1981** | **0.3538** | | **9,164.0437** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.5728 | 14.3849 | 16.2440 | 0.0269 | | 0.6997 | 0.6997 | | 0.6584 | 0.6584 | 0.0000 | 2,555.2099 | 2,555.2099 | 0.6079 | | 2,570.4061 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.3183 | 9.9726 | 3.3771 | 0.0343 | 0.9156 | 0.0122 | 0.9277 | 0.2636 | 0.0116 | 0.2752 | | 3,671.4007 | 3,671.4007 | 0.2096 | | 3,676.6417 |
| Worker | 2.5029 | 1.5073 | 17.8820 | 0.0550 | 6.0932 | 0.0479 | 6.1411 | 1.6163 | 0.0441 | 1.6604 | | 5,483.7974 | 5,483.7974 | 0.1442 | | 5,487.4020 |
| Total | **2.8211** | **11.4799** | **21.2591** | **0.0893** | **7.0088** | **0.0601** | **7.0688** | **1.8799** | **0.0557** | **1.9356** | | **9,155.1981** | **9,155.1981** | **0.3538** | | **9,164.0437** |

**3.6 Paving - 2023**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |
| **Total** | **0.0469** | **0.0282** | **0.3349** | **1.0300e-003** | **0.1141** | **9.0000e-004** | **0.1150** | **0.0303** | **8.3000e-004** | **0.0311** | | **102.6928** | **102.6928** | **2.7000e-003** | | **102.7603** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.0327** | **10.1917** | **14.5842** | **0.0228** | | **0.5102** | **0.5102** | | **0.4694** | **0.4694** | **0.0000** | **2,207.5841** | **2,207.5841** | **0.7140** | | **2,225.4336** |

**3.6 Paving - 2023**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0469 | 0.0282 | 0.3349 | 1.0300e-003 | 0.1141 | 9.0000e-004 | 0.1150 | 0.0303 | 8.3000e-004 | 0.0311 | | 102.6928 | 102.6928 | 2.7000e-003 | | 102.7603 |
| **Total** | **0.0469** | **0.0282** | **0.3349** | **1.0300e-003** | **0.1141** | **9.0000e-004** | **0.1150** | **0.0303** | **8.3000e-004** | **0.0311** | | **102.6928** | **102.6928** | **2.7000e-003** | | **102.7603** |

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |
| **Total** | **0.0444** | **0.0257** | **0.3114** | **1.0000e-003** | **0.1141** | **8.8000e-004** | **0.1150** | **0.0303** | **8.1000e-004** | **0.0311** | | **99.5045** | **99.5045** | **2.4700e-003** | | **99.5663** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.9882 | 9.5246 | 14.6258 | 0.0228 | | 0.4685 | 0.4685 | | 0.4310 | 0.4310 | 0.0000 | 2,207.5472 | 2,207.5472 | 0.7140 | | 2,225.3963 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **0.9882** | **9.5246** | **14.6258** | **0.0228** | | **0.4685** | **0.4685** | | **0.4310** | **0.4310** | **0.0000** | **2,207.5472** | **2,207.5472** | **0.7140** | | **2,225.3963** |

### 3.6 Paving - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0444 | 0.0257 | 0.3114 | 1.0000e-003 | 0.1141 | 8.8000e-004 | 0.1150 | 0.0303 | 8.1000e-004 | 0.0311 | | 99.5045 | 99.5045 | 2.4700e-003 | | 99.5663 |
| **Total** | **0.0444** | **0.0257** | **0.3114** | **1.0000e-003** | **0.1141** | **8.8000e-004** | **0.1150** | **0.0303** | **8.1000e-004** | **0.0311** | | **99.5045** | **99.5045** | **2.4700e-003** | | **99.5663** |

### 3.7 Architectural Coating - 2024

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |
| **Total** | **0.4734** | **0.2743** | **3.3220** | **0.0107** | **1.2171** | **9.4300e-003** | **1.2266** | **0.3229** | **8.6800e-003** | **0.3315** | | **1,061.3818** | **1,061.3818** | **0.0264** | | **1,062.0410** |

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 236.4115 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **236.5923** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.4734 | 0.2743 | 3.3220 | 0.0107 | 1.2171 | 9.4300e-003 | 1.2266 | 0.3229 | 8.6800e-003 | 0.3315 | | 1,061.3818 | 1,061.3818 | 0.0264 | | 1,062.0410 |
| **Total** | **0.4734** | **0.2743** | **3.3220** | **0.0107** | **1.2171** | **9.4300e-003** | **1.2266** | **0.3229** | **8.6800e-003** | **0.3315** | | **1,061.3818** | **1,061.3818** | **0.0264** | | **1,062.0410** |

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |
| Unmitigated | 9.5233 | 45.9914 | 110.0422 | 0.4681 | 45.9592 | 0.3373 | 46.2965 | 12.2950 | 0.3132 | 12.6083 | | 47,917.8005 | 47,917.8005 | 2.1953 | | 47,972.6839 |

**4.2 Trip Summary Information**

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Low Rise | 145.75 | 154.25 | 154.00 | 506,227 | 506,227 |
| Apartments Mid Rise | 4,026.75 | 3,773.25 | 4075.50 | 13,660,065 | 13,660,065 |
| General Office Building | 288.45 | 62.55 | 31.05 | 706,812 | 706,812 |
| High Turnover (Sit Down Restaurant) | 2,368.80 | 2,873.52 | 2817.72 | 3,413,937 | 3,413,937 |
| Hotel | 192.00 | 187.50 | 160.00 | 445,703 | 445,703 |
| Quality Restaurant | 501.12 | 511.92 | 461.20 | 707,488 | 707,488 |
| Regional Shopping Center | 528.08 | 601.44 | 357.84 | 1,112,221 | 1,112,221 |
| Total | 8,050.95 | 8,164.43 | 8,057.31 | 20,552,452 | 20,552,452 |

**4.3 Trip Type Information**

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

| | 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 |
| Apartments Low Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| General Office Building | 16.60 | 8.40 | 6.90 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| High Turnover (Sit Down | 16.60 | 8.40 | 6.90 | 8.50 | 72.50 | 19.00 | 37 | 20 | 43 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Quality Restaurant | 16.60 | 8.40 | 6.90 | 12.00 | 69.00 | 19.00 | 38 | 18 | 44 |
| Regional Shopping Center | 16.60 | 8.40 | 6.90 | 16.30 | 64.70 | 19.00 | 54 | 35 | 11 |

**4.4 Fleet Mix**

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Low Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Apartments Mid Rise | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| General Office Building | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| High Turnover (Sit Down Restaurant) | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Hotel | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Quality Restaurant | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |
| Regional Shopping Center | 0.543088 | 0.044216 | 0.209971 | 0.116369 | 0.014033 | 0.006332 | 0.021166 | 0.033577 | 0.002613 | 0.001817 | 0.005285 | 0.000712 | 0.000821 |

## 5.0 Energy Detail

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |
| NaturalGas Unmitigated | 0.7660 | 6.7462 | 4.2573 | 0.0418 | | 0.5292 | 0.5292 | | 0.5292 | 0.5292 | | 8,355.9832 | 8,355.9832 | 0.1602 | 0.1532 | 8,405.6387 |

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1119.16 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 35784.3 | 0.3859 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1283.42 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22759.9 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4768.72 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5057.75 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 251.616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**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 | lb/day | | | | | | | | | | | lb/day | | | | |
| Apartments Low Rise | 1.11916 | 0.0121 | 0.1031 | 0.0439 | 6.6000e-004 | | 8.3400e-003 | 8.3400e-003 | | 8.3400e-003 | 8.3400e-003 | | 131.6662 | 131.6662 | 2.5200e-003 | 2.4100e-003 | 132.4486 |
| Apartments Mid Rise | 36.7843 | 0.3959 | 3.2978 | 1.4033 | 0.0211 | | 0.2666 | 0.2666 | | 0.2666 | 0.2666 | | 4,209.9164 | 4,209.9164 | 0.0807 | 0.0772 | 4,234.9339 |
| General Office Building | 1.28342 | 0.0138 | 0.1258 | 0.1057 | 7.5000e-004 | | 9.5600e-003 | 9.5600e-003 | | 9.5600e-003 | 9.5600e-003 | | 150.9911 | 150.9911 | 2.8900e-003 | 2.7700e-003 | 151.8884 |
| High Turnover (Sit Down Restaurant) | 22.7589 | 0.2455 | 2.2314 | 1.8743 | 0.0134 | | 0.1696 | 0.1696 | | 0.1696 | 0.1696 | | 2,677.6342 | 2,677.6342 | 0.0513 | 0.0491 | 2,693.5460 |
| Hotel | 4.76972 | 0.0514 | 0.4676 | 0.3928 | 2.8100e-003 | | 0.0355 | 0.0355 | | 0.0355 | 0.0355 | | 561.1436 | 561.1436 | 0.0108 | 0.0103 | 564.4782 |
| Quality Restaurant | 5.05775 | 0.0545 | 0.4959 | 0.4165 | 2.9800e-003 | | 0.0377 | 0.0377 | | 0.0377 | 0.0377 | | 595.0298 | 595.0298 | 0.0114 | 0.0109 | 598.5658 |
| Regional Shopping Center | 0.251616 | 2.7100e-003 | 0.0247 | 0.0207 | 1.5000e-004 | | 1.8700e-003 | 1.8700e-003 | | 1.8700e-003 | 1.8700e-003 | | 29.6019 | 29.6019 | 5.7000e-004 | 5.4000e-004 | 29.7778 |
| **Total** | | **0.7660** | **6.7463** | **4.2573** | **0.0418** | | **0.5292** | **0.5292** | | **0.5292** | **0.5292** | | **8,355.9832** | **8,355.9832** | **0.1602** | **0.1532** | **8,405.6387** |

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |
| Unmitigated | 30.5020 | 15.0496 | 88.4430 | 0.0944 | | 1.5974 | 1.5974 | | 1.5974 | 1.5974 | 0.0000 | 18,148.5950 | 18,148.5950 | 0.4874 | 0.3300 | 18,259.1192 |

**6.2 Area by SubCategory**

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.6500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 2.2670 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 24.1085 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 1.8500 | 14.1000 | 6.0000 | 0.0900 | | 1.1400 | 1.1400 | | 1.1400 | 1.1400 | 0.0000 | 18,000.0000 | 18,000.0000 | 0.3450 | 0.3300 | 18,106.9650 |
| Landscaping | 2.4766 | 0.9496 | 82.4430 | 4.3600e-003 | | 0.4574 | 0.4574 | | 0.4574 | 0.4574 | | 148.5950 | 148.5950 | 0.1424 | | 152.1542 |
| **Total** | **30.5020** | **15.0496** | **88.4430** | **0.0944** | | **1.5974** | **1.5974** | | **1.5974** | **1.5974** | **0.0000** | **18,148.5950** | **18,148.5950** | **0.4874** | **0.3300** | **18,259.1192** |

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

**11.0 Vegetation**

Attachment C

| Local Hire Provision Net Change | |
|---|---|
| **Without Local Hire Provision** | |
| Total Construction GHG Emissions (MT CO2e) | 3,623 |
| Amortized (MT CO2e/year) | 120.77 |
| **With Local Hire Provision** | |
| Total Construction GHG Emissions (MT CO2e) | 3,024 |
| Amortized (MT CO2e/year) | 100.80 |
| ***% Decrease in Construction-related GHG Emissions*** | ***17%*** |

**EXHIBIT B**

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
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# *Paul Rosenfeld, Ph.D.*

**Chemical Fate and Transport & Air Dispersion Modeling**

*Principal Environmental Chemist*

**Risk Assessment & Remediation Specialist**

## Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

## Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

## Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex $H_2O$ Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

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## Presentations:

**Rosenfeld, P.E.,** Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

**Rosenfeld, P.E.** (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

**Rosenfeld, P.E.** (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D**. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D**. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D**. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D**. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D**. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D**. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D**. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E.**, Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D**. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E**. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E**. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E**. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld. P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld. P.E. (**October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E. (**2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E**., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.**, C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.**, C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

## Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association: Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

## Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington. Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

## Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs*, vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs*, vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs*, vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,. LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,. LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al,. Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs*, vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs*, vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

**EXHIBIT C**

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Santa Monica, California 90401
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Email: mhagemann@swape.com

**Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

**Geologic and Hydrogeologic Characterization**
**Industrial Stormwater Compliance**
**Investigation and Remediation Strategies**
**Litigation Support and Testifying Expert**
**CEQA Review**

**Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

**Professional Certifications:**

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

**Professional Experience:**

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

**Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

**Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

**Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

**Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

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**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

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**Response to Comment Letter O3: Mitchell M. Tsai on behalf of Southwest Carpenters "SWMSRCC"**

**Response O3.1:** This comment provides a summary of the Project description and description of the labor union. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O3.2:** This comment does not provide substantial evidence of a significant environmental impact. In regard to requiring local workers during construction, according to the U.S. Census Bureau, 10,382 individuals are employed in the construction industry in the City of Santa Ana.[1] Therefore, future construction contractors could hire locally based on the substantial amount of construction workers living within the City of Santa Ana. Thus, the Project is anticipating hiring locally and environmental impacts including greenhouse gas emissions and VMT would not be further reduced upon hiring through the labor union. Additionally, pursuant to CEQA Guidelines Section 15131(a), economic or social effects of a Project shall not be treated as significant effects on the environment. Thus, no further response is required or provided.

**Response O3.3:** As discussed in Response O3.2, according to the U.S. Census Bureau, 10,382 individuals are employed in the construction industry in the City of Santa Ana (U.S. Census Bureau 2023). Therefore, future construction contractors could hire locally based on the substantial amount of construction workers living within the City of Santa Ana.[2] Thus, the Project is anticipating hiring locally and environmental impacts including air quality, GHG emissions and VMT would not be further reduced upon hiring through the labor union. Additionally, pursuant to CEQA Guidelines Section 15131(a), economic or social effects of a Project shall not be treated as significant effects on the environment. The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. The commenter references other cities that have implemented programs to hire local and trained work forces, and references publications that purport to show economic and environmental benefits of these practices. The commenter, however, does not identify any analysis deficiencies or inaccuracies in the proposed Project's Draft Supplemental EIR. Moreover, the potential benefits of local, skilled labor requirements/policies have not been quantified, and are caveated in the commenter's references (e.g., the GHG reduction associated with a local hire requirement and anticipated decreased worker trip length would "vary based on the location and urbanization level of the project site."). The potential benefits of the recommended requirements, therefore, are speculative. Furthermore, as noted in the City of Hayward example, such policies have been promoted in general plans and municipal codes (not as CEQA mitigation). The commenter does not specify how requiring local hire or the other recommendations would achieve further reductions in GHG emissions during construction, nor does the commenter explain whether it is feasible or identify evidence supporting any implied conclusion that reductions would be achieved. For instance, the commenter does not provide any evidence that construction worker trip distance would be reduced through implementation of such measures. Therefore, no further response is required or provided.

**Response O3.4:** The comment does not provide any substantial evidence concerning any environmental impact. In regard to COVID-19 training measures, the COVID-19 pandemic is an existing condition of temporary significance and not a Project-specific impact. Effects of the environment on a project are not subject to CEQA review (Public Resources Code Sections 21065 and 21068). COVID-19 is not an impact of the proposed Project. CEQA is generally not concerned with the effect the existing environment might have on proposed projects, and such effects are not treated as changes in the physical environment. See, e.g., *California Bldg. Indus. Assn. v. Bay Area Air Quality Mgmt. Dist.*, 62 Cal. 4th 369, 378 (2015) (CEQA does not require analysis of impact that existing environmental conditions might have on project, its residents, or its users, except when required by specific statutory exception). Therefore, the City does not have to analyze the impact of COVID-19, an existing condition, on the Project. Moreover, in the absence of any applicable

[1,2] United States Census Bureau. Industry by Sex for the Full-Time, Year-Round Civilian. [online]: https://data.census.gov/table?q=santa+ana&t=Industry. Accessed September 19, 2023.

methodology, such an analysis would be speculative. There are many responsible agencies that promulgate the appropriate standards, policies, and procedures to address infectious disease control including the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health, and local public health agencies. The Project will, to the extent applicable, comply with the regulations of various federal, state, and local agencies that are intended to control the spread of COVID-19. Therefore, none of the proposed measures are warranted. Further, as discussed on page 5.6-2 of Section 5.6, *Hazards and Hazardous Materials*, adherence to applicable hazard-specific OSHA standards is required to maintain worker safety. Compliance with CalOSHA regulations and associated programs would be required for the proposed Project due to the potential hazards posed by onsite construction activities and contamination from former uses, and would be ensured through the City's construction permitting process.

**Response O3.5:** The comment purports to describe CEQA and its requirements. Those are no specific comments on the Draft Supplemental EIR and raise no issue with its analysis. As discussed on page 2-5 of Section 2.0*, Introduction*, the City of Santa Ana held a scoping meeting for the proposed Project to solicit oral and written comments from the public and public agencies. The public scoping meeting was held on March 30, 2023. Comments received at the meeting are contained in Appendix A of the Draft Supplemental EIR. Additionally, the City of Santa Ana, as Lead Agency, prepared a NOP for the proposed Project, which was distributed on March 17, 2023 for a 30-day public review and comment period that ended on April 17, 2023. The Draft Supplemental EIR was circulated for a 45-day public review period that allowed for public comments. Additionally, the Draft Supplemental EIR provides an accurate and thorough analysis of all of the Project's potential environmental impacts pursuant to CEQA. As discussed throughout the Draft Supplemental EIR, mitigation measures would only be required for impacts related to air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and tribal cultural resources as these impact areas are the only ones that are potentially significant after the imposition of existing regulations and standards conditions. In regard to these impact areas, the Project would implement all feasible mitigation required to reduce impacts to a less than significant level. For other impact areas, there would be no nexus requiring mitigation pursuant to CEQA Guidelines Section 15126.4, subd. (a)(4)(A)-(B), and impacts would be less than significant. Thus, the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature and the comment did not provide substantial evidence that would require recirculation. Therefore, no further response is warranted.

**Response O3.6:** Regarding Project phasing, Section 3.0, *Project Description*, of the Draft Supplemental EIR identifies the proposed Specific Plan construction phasing. An overlap of construction phasing within blocks is speculative as that is not currently proposed by the Project. As described in Chapter 6 of the Specific Plan, construction of Phase 1 is expected to commence in the first quarter of 2026 with completion in the first quarter of 2030. Existing land uses in the Phase 2 and Phase 3 areas would be operational while Phase 1 is under construction. Phase 2 is expected to commence in the second quarter of 2030 with completion in the fourth quarter of 2032. Phase 3 is expected to commence in the first quarter of 2033 with completion in the second quarter of 2036. As a Draft Supplemental EIR for a Specific Plan, the EIR is not required to analyze a speculative overlap of construction phasing. As substantiated by CEQA case law, the Draft Supplemental EIR is not required to analyze impacts from worst-case hypothetical buildout conditions as this analysis would be speculative (*Napa Citizens for Honest Government v. Napa County Board of Supervi*sors (2001) 91 Cal.App.4th 342, 373 ["[a]n EIR is not required to engage in speculation in order to analyze a 'worst case scenario.'"].) The Draft Supplemental EIR's analysis is based on reasonable assumptions regarding buildout, including analyzing the potential impact of multi-phase construction on Project-established uses, as well as surrounding existing uses. The commenter is referred to the Draft Supplemental EIR's noise and air quality analyses, for instance, which consider the potential impacts of each phase on existing off-site and future on-site receptors. Future projects pursuant to the Specific Plan would undergo Development Project Review by the City, which would ensure that they are developed consistent with the assumptions set forth in the

Supplemental EIR, including assumptions for phasing. Further, pursuant to General Plan Final EIR Mitigation Measure AQ-1, any change to the Project that requires a discretionary approval by the City of Santa Ana would require preparation of a technical assessment evaluating potential project construction-related air quality impacts and inclusion of additional mitigation measures, beyond those already identified in this Supplemental EIR.

**Response O3.7**: Pursuant to Section 15126.6, subd. (a) of the CEQA Guidelines, an EIR shall describe a range of reasonable alternatives to the Project, which would feasibly attain most of the objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. Both build alternatives considered would result in less than significant noise, cultural resources, geology and soils, hazardous material, population and housing, transportation, and land use impacts with implementation of the same mitigation measures.

Regarding air quality, Section 6.0, *Alternatives,* of the Draft Supplemental EIR details in Table 6-4 that impacts from Alternative 1 would be less than the proposed Project and that operational impacts from Alternative 2 would be less than significant with mitigation, which is less than the proposed Project. Thus, the alternatives evaluated in the Draft Supplemental EIR reduce the significant and unavoidable air quality impact.

Regarding park and recreation impacts, as detailed in the City's GPU FEIR, due to the existing deficiency in parkland in the City of Santa Ana and urban developed nature of the City, without sufficient available undeveloped sites or areas suitable for redevelopment for additional parkland, impacts related to buildout of the City's GPU, including the South Bristol Street Focus Area and the Specific Plan area, would cumulatively contribute. The impact related to parks and recreational lands within the City would occur without the Project due to the lack of available land and the GPU policy of 3 acres of public park and/or recreational space per 1,000 residents. The GPU FEIR concluded that impacts to parks and recreation would be a significant and unavoidable impact. Nevertheless, the Project would provide approximately 17.21 acres of public and private open space. However, Table 6-4 details that impacts to parks and recreation from Alternative 3 would be less than the proposed Project; thus, the alternatives evaluated would reduce the impact of the Project. Thus, the Draft Supplemental EIR includes a reasonable range of alternatives. Thus, the alternatives within the Draft Supplemental EIR are not fundamentally inadequate, do not need to be revised, and the comment did not provide substantial evidence that would require recirculation.

**Response O3.8**: The City disagrees with the assertion that Mitigation Measures AQ-1 and AQ-3 constitute mitigation deferral. As set forth in CEQA Guidelines Section 15126.4, subd. (a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to specify the specific details of mitigation during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and identifies the types of actions that may achieve compliance with the performance standard. As described in Section 3.0 of the Draft Supplemental EIR, the proposed Project is a Specific Plan and at this time, no specific development project is being proposed. Therefore, it is not feasible to prepare specific construction traffic control plans or transportation demand management plans at this time. However, as required for mitigation measures, both Mitigation Measure AQ-1 and Mitigation Measure AQ-3 set forth specified performance standards to meet applicable emissions reductions and would be required to be implemented for all future developments within the Specific Plan area.

Mitigation Measure AQ-1 does not defer mitigation as it is properly formulated to require specific actions such as implementation fugitive dust control measures, requiring Tier 4 Final equipment, and limiting idling in order to reduce construction related air quality emissions. Regarding the construction traffic control plan required by Mitigation Measure AQ-1, while the formulation of the specific plan would be deferred to a later date once construction specifications are known, the measure requires exact performance standards for what is required within the construction traffic control plan, including identification of staging areas,

proposed road closures, and hours of construction and the design of the plan in order to minimize impacts to roads frequented by non-truck traffic.

Mitigation Measure AQ-3 does not constitute improperly deferred mitigation as it requires specific performance standards and criteria for inclusion within the Commute Trip Reduction (CTR)/Transportation Demand Management (TDM). For example, Mitigation Measure AQ-3 discusses specific TDM requirements, which shall be implemented by the Project such as, coordination with the local transit service provider, preferential carpool parking, ride-matching assistance, and bicycle end of trip facilities, among others. All of these TDM measures have demonstrated emissions reductions set forth in the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*. Therefore, pursuant to CEQA Guidelines Section 15126.4, subd. (a)(1)(B), Mitigation Measures AQ-1 and AQ-3 do not constitute mitigation deferral.

**Response O3.9:** As discussed on page 5.6-2 of Section 5.6, *Hazards and Hazardous Materials*, adherence to applicable hazard-specific OSHA standards is required to maintain worker safety. Compliance with CalOSHA regulations and associated programs would be required for the proposed Project due to the potential hazards posed by onsite construction activities and contamination from former uses. Page 5.6-11 of the Draft Supplemental EIR describes regulations related to construction and asbestos and lead based paint materials that protect both the environment and human health. As detailed on page 5.6-24, asbestos abatement contractors must follow state regulations contained in California Code of Regulations Sections 1529, and 341.6 through 341.14 as implemented by SCAQMD Rule 1403 to ensure that asbestos removed during demolition or redevelopment of the existing buildings is transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition permit until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. These requirements are included as PPP HAZ-1 to ensure that the Project applicant submits verification to the City that the appropriate activities related to asbestos have occurred, which would reduce the potential of impacts related to asbestos to a less than significant level.

Likewise, page 5.6-11of the Draft Supplemental EIR describes that the Code of Federal Regulations Title 29, Section 1926.62, and the California Code of Regulations Title 8 Section 1532.1, as implemented by CalOSHA cover the demolition, removal, cleanup, transportation, storage, and disposal of lead-containing material. CalOSHA's Lead in Construction Standard requires project applicants to develop and implement a lead compliance plan when lead-based paint would be disturbed during construction or demolition activities. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. In addition, CalOSHA requires 24-hour notification if more than 100 SF of lead-based paint would be disturbed. These requirements are included as PPP HAZ-2 to ensure that the Project applicant submits verification to the City that the appropriate activities related to lead have occurred, which would reduce the potential of impacts related to lead-based materials to a less than significant level.

Additionally, Draft Supplemental EIR Section 5.6, *Hazards and Hazardous Materials* includes Mitigation Measure HAZ-1 to ensure a Soil Management Plan is prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for excavation and disposal of potential hazardous materials within soils consistent with applicable regulations and standards. Thus, the hazards and hazardous materials analysis appropriately analyzes impacts related to hazards and hazardous materials and includes appropriate mitigation to reduce potential impacts to a less than significant level. The comment does not provide any substantial evidence concerning any environmental impact.

**Response O3.10:** The Draft Supplemental EIR provides a clear discussion of how the Project would implement the City's GPU. As discussed on page 5.8-27 of the Draft Supplemental EIR, Table 5.8-3 details the Project consistency with relevant general plan update goals, policies, and objectives. As discussed on page 5.8-43, the proposed Project includes a zone change of the site from C-2 and CR to Specific Plan to implement the General Plan land use designation and Focus Area designations. The City's Municipal Code Section 41-592 states that the provisions in a specific plan shall control the use and development of property in the SP district; that the purpose of the SP district is to provide for the orderly implementation of the area, provide specific development standards for the site, and limit uses to those stated in the applicable specific plan. Thus, the Draft Supplemental EIR adequately analyzes the land use findings with substantial evidence and discusses the Project's entitlements. Therefore, no revisions to the Draft Supplemental EIR is warranted.

**Response O3.11:** As described in Responses O3.2 through O3.4, the proposed Project is anticipated to hiring from the local workforce and the Project would not result in impacts related to COVID-19. However, as detailed in Section 5.6, *Hazards and Hazardous Materials*, adherence to applicable hazard-specific OSHA standards is required to maintain worker safety. Compliance with CalOSHA regulations and associated programs related to human health would be required for the proposed Project. The comment does not provide any substantial evidence concerning any environmental impact. The comment does not raise any specific concerns with the adequacy of the Draft Supplemental EIR. Therefore, no further response is required.

**Response O3.12:** The comment does not provide any substantial evidence concerning any environmental impact. The comment introduces Soil Water Air Protection Enterprise (SWAPE) and introduces the technical comments relating to GHG emissions and worker trip lengths. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O3.13**: The comment does not provide any substantial evidence concerning any environmental impact. The comment introduces CalEEMod and discusses how VMT can be reduced by decreasing the average trip length. The comment is general in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O3.14:** The comment does not provide any substantial evidence concerning any environmental impact. This comment provides technical information on default trip lengths within CalEEMod and how to calculate and justify trip lengths. The comment is not specific to the proposed Project and does not provide any substantial evidence concerning any environmental impact. The comment does not raise any specific concerns with the adequacy of the Draft Supplemental EIR. Therefore, no further response is required or provided.

**Response O3.15**: The comment does not provide any substantial evidence concerning any environmental impact. This comment provides a summary of an example on the potential impact of local hire provisions on construction related GHG emissions utilizing the Village South Specific Plan in the City of Claremont. The comment states that for example, the Village South Specific Plan reduced the default trip length of 14.7 miles to 10 miles, which resulted in a decrease of GHG emissions by approximately 17% for the example project. As shown on page 91 of the CalEEMod Emissions Model Outputs attachment to Appendix I of the Draft Supplemental EIR, the trip length utilized for the proposed Project's GHG analysis was 18.5 miles. Using this conservative construction worker trip length, GHG emissions resulting from construction and operation of the proposed Project would be less than significant with mitigation incorporated, as stated on page 5.5-17 of the Draft Supplemental EIR. The comment does not provide any substantial evidence concerning any environmental impact. The comment does not raise any specific concerns with the adequacy of the Draft Supplemental EIR. This comment and response will be forwarded to all decision-making bodies to inform their decision on the Project.

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**LETTER O4: UNITE HERE Local 11, received August 21, 2023 (16 pages)**

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August 21, 2023

***VIA EMAIL:***

Ali Pezeshkpour, AICP, Planning Manager
City of Santa Ana Planning and Building Agency
P.O. Box 1988 (M-20)
Santa Ana, CA 92702
apezeshkpour@santa-ana.org

**RE: DRAFT EIR COMMENTS ON THE BRISTOL SPECIFIC PLAN**

Dear Ali Pezeshkpour:

On behalf of UNITE HERE Local 11 ("**Local 11**"), this office respectfully provides the following comments[1] to the City of Santa Ana ("**City**") regarding the Draft Supplemental Environmental Impact Report ("**DSEIR**")[2] for the proposed Related Bristol Specific Plan ("**Specific Plan**")[3] to allow the redevelopment of the 42-acre site located at 3600 South Bristol Street currently occupied predominately with retail and restaurant uses, as well as some medical office, financial, and fitness uses ("**Site**"). Under the Specific Plan, the Site would be redeveloped in three phases and include up to 3,750 residential units, 250 hotel rooms, 200 units of senior continuum care, and 350,0000 square feet of retail and restaurant uses ("**Project**").

O4.1

For purposes of the Project's review under the California Environmental Quality Act ("**CEQA**"), the City has prepared the DSEIR to the City's General Plan Update ("**GPU**") Program Environmental Impact Report (SCH # 2020029087) ("**PEIR**")[4] adopted in April 2022. (See DSEIR, p. 1-1.) The City must consider whether to certify a Supplemental Environmental Impact Report ("**SEIR**"). Other discretionary approvals for the City to consider include: (i) adoption of the Specific Plan; (ii) Zoning Map Amendment to change the zoning of the Site; (iii) a Tentative Tract Map to delineate parcel boundaries and public rights-of-way; and (iv) a development agreement detailing development rights and public benefits pursuant Government Code Section 65864 et seq. (collectively "**Entitlements**"). (Id., at pp. 3-35 – 3-36.)

O4.2

In short, Local 11 is concerned with several elements of the Specific Plan and DSEIR, particularly how the DSEIR does not clearly address whether any of the proposed residential units will be restricted as affordable units or what sort of in-lieu fees may apply to the Project's failure to

[1] Herein, page citations are either the stated pagination (i.e., "**p. #**") or PDF-page location (i.e., "**PDF p. #**")
[2] Inclusive of all appendices retrieved from City website. (See https://www.santa-ana.org/related-california-bristol-specific-plan/#:~:text=Project%20description,acres%20of%20onsite%20open%20space.)
[3] Inclusive of all draft documents retrieved from City website. (See https://www.santa-ana.org/related-california-bristol-specific-plan-document/.)
[4] Inclusive of updated draft, response to comments, addendums, and all associated appendices retrieved from City website. (See https://www.santa-ana.org/general-plan-environmental-documents/; see also https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/07/Santa-Ana-Housing-Element_Addendum_June_2022.pdf.)

provide its fair share of parkland space to residents. Additionally, while the April 2022 PEIR determined the GPU would result in significant and unavoidable impacts on (among other things) air quality and greenhouse gas ("**GHG**") emissions,[5] the DSEIR (which is intended to evaluate the impacts of the Project in the context of the GPU) fails to adequately analyze the Project's air quality and GHG impacts. The DSEIR also fails to conduct a vehicle mile traveled ("**VMT**") analysis, which leads to inadequate consideration of additional traffic mitigation measures. Furthermore, in addition to modifications that should be made to several of the mitigation measures identified in the DSEIR, the City should require a DSEIR to include and consider additional measures identified in this letter, such as: O4.2 Cont.

1. Requiring a percentage of residential units to be affordable units;
2. Establishment of clear park in-lieu fees tied to a capital program of securing additional parkland space near the Project Site over the course of the Project construction; O4.3
3. Inclusion of a robust hotel-specific Traffic Demand Management ("**TDM**") program;
4. Implementation of a hotel-specific recycling and food waste program; and
5. Additional measures that reduce emissions and/or VMTs that are recommended by various public agencies.

For these reasons, we urge the City to cure these errors and flaws in a recirculated DSEIR before certifying the SEIR or granting the Entitlements (collectively "**Project Approvals**").

## I. LOCAL 11'S STANDING

Local 11 represents more than 25,000 workers employed in hotels, restaurants, airports, sports arenas, and convention centers throughout Southern California and Phoenix—including *hundreds of members who live and/or work in the City*. The union has a First Amendment right to petition public officials in connection with matters of public concern, including compliance with applicable zoning rules and CEQA, just as developers, other community organizations, and individual residents do. Protecting its members' interest in the environment, including advocating for the environmental sustainability of development projects and ensuring the availability of housing and hotels (in compliance with state and local rules), is part of Local 11's core function. Local 11 members breathe air, suffer the impacts caused by climate change, and suffer the lack of adequate parkland spaces in the communities they live, work, and/or re-create. Furthermore, recognizing unions' interest and union members' interest in these issues, California courts have consistently upheld unions' standing to litigate land use and environmental claims. (See *Bakersfield Citizens v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1198.) Furthermore, Local 11 has public interest standing to challenge the Project Approvals given the City's public duty to comply with applicable zoning and CEQA laws, which Local 11 seeks to enforce. (See e.g., *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 914-916, n.6; *La Mirada Avenue Neighborhood Assn. of Hollywood v. City of Los Angeles* (2018) 22 Cal.App.5th 1149, 1158-1159; *Weiss v. City of Los Angeles* (2016) 2 Cal.App.5th 194, 205-206; *Save the Plastic Bag Coalition v. City of Manhattan Beach* (2011) 52 Cal.4th 155, 166, 169–170.) O4.4

[5] See Final PEIR, Tbl. 1-5, https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/04/Chapter-1-Executive-Summary.pdf.

## II. SPECIFIC PLAN & DSEIR COMMENTS

### A. AFFORDABLE HOUSING IMPACTS AND COMPLIANCE WITH THE CITY'S INCLUSIONARY HOUSING REQUIREMENT SHOULD BE CLARIFIED

The CEQA Initial Study Checklist, used to determine whether a project may have significant environmental impacts, includes the question of whether a project may "[c]onflict with any applicable land use plan, policy, or regulation ... adopted for the purpose of avoiding or mitigating an environmental effect." (CEQA Guidelines, Appendix G; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 929 (EIR required to analyze project's inconsistency with City land use ordinance for planned developments).) A project is inconsistent if it conflicts with a fundamental, mandatory and specific land use policy. (*Families Unafraid to Uphold Rural etc. County v. Board of Supervisors* (1998) 62 Cal.App.4th 1332, 1342.) Furthermore, a project that causes a loss of housing stock, land available for housing, or violates zoning laws designed to encourage housing, can pose a potentially significant impact that must be considered under CEQA. (*Concerned Citizens v. Los Angeles Unified School District* (1994) 24 Cal.App.4th 826, 838 (SEIR acknowledged significant adverse impact on affordable housing stock); *Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1038-39 (loss of housing can constitute a potentially significant impact necessitating adequate mitigation measures).) O4.5

For the City, one of the key objectives of the GPU was to focus residential growth in certain areas, including the Project Site (i.e., South Bristol Street areas), that would maximize affordable housing opportunities in furtherance of the City's RHNA obligations. (See PEIR, pp. 1-10, 3-2, 3-51, 3-57.) The City's current 2021-2029 RHNA allocation includes a need for 3,137 total units at various income levels. (See Housing Element,[6] p. C-2 [Tbl. C-1]; see excerpt below.)

**Table C-1**
**Regional Housing Needs Allocation 2021–2029**

| | *Very Low (0–50% of MFI)* | *Low (51–80% of MFI)* | *Moderate (81–120% of MFI)* | *Above Moderate (120% above MFI)* | *Total* |
|---|---|---|---|---|---|
| 2021–2029 RHNA | 586 | 362 | 523 | 1,624 | **3,095** |
| County of Orange Transfer | 20 | 0 | 22 | 0 | **42** |
| Total 2021-2029 RHNA | **606** | **362** | **545** | **1,624** | **3,137** |

Source: SCAG, 2021; City of Santa Ana, 2021

O4.6

Here, however, the Specific Plan does not appear to require that any of the 3,750 residential units be affordable. While the DSEIR mentions the City's Affordable Housing Opportunity and Creation Ordinance ("**AHOCO**") under Santa Ana Municipal Code ("**SAMC**" or "**Code**") § 41-1900 et seq. (DSEIR, p. 5.10-3), it is unclear whether subsequent development of the Project would trigger any of five AHOCO thresholds listed under section 41-1902(a) requiring a percentage of for sale and rental units to be affordable at various affordability levels (id., at subd. (c) and (d)). This ambiguity must be clarified and clearly disclosed to the public – whether any of the residential units will be affordable and at what levels. To the extent the Specific Plan permits residential units without any

[6] https://www.santa-ana.org/documents/certified-housing-element-september-2022/.

mandatory affordable units, the DSEIR land use consistency analysis is flawed as it relates to policies and goals related to affordable housing, such as: regional goals under the Southern California Association of Governments ("**SCAG**") RTP/SCS to promote diverse housing choices (pp. 5.8-2, 5.8-20 – 5.8-22); City Housing Element Goals 1 and 2 of producing affordable neighborhoods at diverse affordability levels and Policy HE-5.6 to expand housing opportunities (pp. 5.10-2 – 5.10-3); and consistency with the City's AHOCO requirements (id.). So too, the DSEIR fails to consider additional goals/policies related to affordable housing, such as the City's Housing Element Goals 3 and 4 and policies HE-2.1, HE-2.4, HE-2.5, HE-2.7, HE-3.7, HE-4.2.[7] Furthermore, the DSEIR fails to consider how the Project will further the PEIR's fundamental objective of maximizing affordable housing opportunities, which is curiously absent from the listed objectives under the DSEIR. (*Compare* PEIR, pp. 3-2 *with* DSEIR, p. 1-5.)

O4.6 Cont.

In sum, the DSEIR must be recirculated to clarify any affordable housing requirements and any inconsistency with applicable goals/policies intended to encourage/maximize affordable housing opportunities. Furthermore, to the extent the Project is inconsistent with said land use policies, the DSEIR should consider additional mitigation measures and alternatives that include mandatory affordable unit requirements discussed below (*infra* sub-section II.F).

O4.7

**B. RECREATIONAL IMPACT FEES SHOULD BE SPECIFIED**

The City must provide a comprehensive assessment of the Project's impacts on the region's biological and recreational resources. (See Pub. Res. Code § 21001(c); *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 793; CEQA Guidelines, Appendix G § XV.) Here, the City has a park standard of 3 acres per 1,000 residents or approximately 27.7 acres of parkland needed to serve the Project's proposed 9,238 new residents. (DSEIR p. 5.12-9.) However, the Project is providing only 17.21 acres and, thus, exacerbates the existing citywide parkland deficiency. (Id.) While the DSEIR mentions in-lieu fees, it does not include such fees as required mitigation for this Project. (Id.) The DSEIR should be recirculated to specifically address in-lieu fee requirements, a program to secure adequate park facilities near the Project site, and means of monitoring/enforcing said program over the course of the Project. These requirements should be made clear in the Specific Plan as recommended below (*infra* sub-section II.F).

O4.8

**C. AIR QUALITY IMPACTS ARE UNDERESTIMATED**

Air quality impacts and their concomitant impacts on human health must be studied in CEQA documents. (See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1220 [quoting CEQA Guidelines § 15126.2(a)].) Courts have recognized the threat of toxic air contaminants ("**TACs**"), such as the carcinogenic threat posed by diesel particulate matter ("**DPM**") emitted from highway vehicles and particularly from heavy-duty trucks. (*Cleveland III*, 17 Cal.App.5th at 438-439 (citing a growing body of scientific evidence, including several studies and estimates by the California Air Resources Board, showing proximity to heavy traffic volumes is associated with increased respiratory symptoms, risk of heart and lung disease, elevated mortality rates, and that DPM resulted in 720 excess cancer cases per million in the San Diego region in 2000).) Hence, CEQA requires an agency to correlate transportation-related emissions to anticipated adverse health impacts. (Id. at 33; see also *Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1367–1371.) Here, the DSEIR suffers several analytical flaws.

O4.9

[7] https://www.santa-ana.org/documents/certified-housing-element-september-2022/.

***1. The Specific Plan Must Include a Clear Bar Against Overlapping Phase Construction***

The DSEIR assumes that the Project will follow three phases of development, including Phase 1 (first quarter of 2026 with completion in the first quarter of 2030), Phase 2 (second quarter of 2030 with completion in the fourth quarter of 2032), and Phase 3 (first quarter of 2033 with completion in the second quarter of 2036). (DSEIR, pp. 3-35). While it was assumed existing uses within Phase 2 and Phase 3 areas would continue to operate during Phase 1 construction (id.), there is nothing in the DSEIR models that any of the phases of construction would overlap during any period. Despite this, the Specific Plan does not appear to prevent overlapping/concurrent construction of multiple phase areas. To be consistent, the Specific Plan must include a clear restriction barring concurrent construction of multiple phase areas; otherwise, the Project may have significantly greater maximum daily construction emissions than anticipated. O4.9 cont.

***2. The DSEIR Underestimates Maximum Daily Emissions When Construction Emissions are Added to Existing and New Operational Emissions***

The DSEIR includes a variety of overlapping emissions totals that appear to be undercounted. (See DSEIR, pp. 5.1-29 – 5.1-32.) First, during Phase 1 construction, the DSEIR does not consider how Phase 1 construction emissions will exacerbate existing operational emissions in Phase 2 and 3 areas. As mentioned above, the Specific Plan anticipates existing "[l]and uses in Phase 2 and Phase 3 would be operational while Phase 1 is under construction." (DSEIR, p. 3-35.) When adding mitigated Phase 1 construction emissions to these existing operational emissions from Phase 2 and 3 areas, the Project Site will generate a peak total of 79.28 lbs/day ROG emissions and 188.47 lbs/day in NOx emissions, which both exceed applicable South Coast Air Quality Management District ("**SCAQMD**") thresholds. (See table below.) O4.10

| | Emissions (Maximum lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | ROG | NOX | CO | SO2 | PM10 | PM2.5 |
| **Phase 1 Construction (Q1 2026 - Q1 2030)** | | | | | | |
| Phase 1 Area (Max Mitigated Conx. Emissions) [b] | 24.27 | 158.1 | 240.47 | 0.96 | 60.2 | 14.84 |
| Phase 2 Area (Existing Operational Emissions) [a] | 9.41 | 8.46 | 43.57 | 39.84 | 1.54 | 0.35 |
| Phase 3 Area (Existing Operational Emissions) [a] | 45.6 | 21.91 | 219.86 | 0.38 | 7.79 | 1.77 |
| total | 79.28 | 188.47 | 503.9 | 41.18 | 69.53 | 16.96 |
| SCAQMD Threshold | 75 | 100 | 550 | 150 | 150 | 55 |

Notes: [a]: Draft SEIR, Tbls. 5.1-4 & 5.1-22; [b]: Draft SEIR, Tbl. 5.1-9

Second, during Phase 2 construction, the DSEIR considers only Phase 1 operations and Phase 2 construction emissions but does not consider existing operational emissions in the Phase 3 area. (DSEIR, p. 5.1-29.) Also, the DSEIR adds only net new (as compared to total) operational emissions from Phase 1 area. (*Compare* Tbl. 5.1-19 *with* 5.1-15.) Collectively, these errors underestimate the maximum emissions from the Project. When adding mitigated Phase 2 construction emissions to total new operational emissions in the Phase 1 area and existing operational emissions from Phase 3, the Project Site will generate a peak total of 163.77 lbs/day in ROG emissions and 571.35 lbs/day in CO emissions, which both exceed applicable SCAQMD thresholds. (See table on following page.) O4.11

O4.11 Cont.

| | Emissions (Maximum lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | ROG | NOX | CO | SO2 | PM10 | PM2.5 |
| **Phase 2 Construction (Q2 2030 - Q4 2032)** | | | | | | |
| Phase 1 Area (New Operational Emissions) [e] | 90.42 | 30.08 | 252.27 | 0.67 | 25.41 | 5.23 |
| Phase 2 Area (Max Mitigated Conx. Emissions) [c] | 27.75 | 26.03 | 99.22 | 0.2 | 16.49 | 5.56 |
| Phase 3 Area (Existing Operational Emissions) [a] | 45.6 | 21.91 | 219.86 | 0.38 | 7.79 | 1.77 |
| total | 163.77 | 78.02 | 571.35 | 1.25 | 49.69 | 12.56 |
| SCAQMD Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Notes: [a] Draft SEIR, Tbls. 5.1-4 & 5.1-22; [c]: Draft SEIR, Tbl. 5.1-11; [e]: Draft SEIR, Tbl. 5.1-15 & 5.1-22 | | | | | | |

Third, *during Phase 3 construction*, the DSEIR added only net operational emissions from both Phase 1 and 2 as compared to total emissions from the new operations in Phase 1 and 2. (*Compare* Tbl. 5.1-21 *with* 5.1-15 and 5.1-22.) The DSEIR analyzed a variety of overlapping operations and constructions. When adding mitigated Phase 3 construction emissions to total new operational emissions in Phase 1 and 2 areas, the Project Site will generate a peak total of 162.43 lbs/day in ROG emissions, 125.63 lbs/day in NOx emissions, and 588.33 lbs/day in CO emissions, which all exceed applicable SCAQMD thresholds. (See table below.), O4.12

| | Emissions (Maximum lbs/day) | | | | | |
|---|---|---|---|---|---|---|
| | ROG | NOX | CO | SO2 | PM10 | PM2.5 |
| **Phase 3 Construction (Q1 2033 - Q2 2036)** | | | | | | |
| Phase 1 Area (New Operational Emissions) [e] | 90.42 | 30.08 | 252.27 | 0.67 | 25.41 | 5.23 |
| Phase 2 Area (New Operational Emissions) [e] | 33.76 | 9.16 | 81.08 | 0.23 | 9.12 | 1.84 |
| Phase 3 Area (Max Mitigated Conx. Emissions) [d] | 38.25 | 86.39 | 254.98 | 0.66 | 108.54 | 26.37 |
| total | 162.43 | 125.63 | 588.33 | 1.56 | 143.07 | 33.44 |
| SCAQMD Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Notes: [d]: Draft SEIR, Tbl. 5.1-13; [e]: Draft SEIR, Tbl. 5.1-15 & 5.1-22 | | | | | | |

None of these significant impacts during construction are disclosed in the DSEIR, which were not covered in the PEIR. (See PEIR, pp. 5.2-54.) Nor is there any explanation of what, if any, mitigation measures were considered and deemed infeasible to further reduce emissions. O4.13

### *3. Localized Construction Impact Analysis is Flawed*

The DSEIR claims that the Project would not cause localized air quality impacts to sensitive receptors during construction pursuant to SCAQMD's Local Significance Thresholds ("**LST**(s)"). (DSEIR, p. 5.1-32 – 5.3-37.) However, the DSEIR's LST methodology is flawed in several ways.

#### *a. The Site is Too Large to Use the LST Methodology* O4.14

SCAQMD's "**LST Guidance**"[8] makes clear that LST methodology is a tool applicable at project-level review and "not applicable regional projects such as General Plans." (LST Guidance, Preface.) It continues to state that the LST is appropriate only for projects no more than 5 acres in

[8] http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

site (p. 1-1) and where emissions are "non-uniform across the site. (Id., at pp. 1-1, 3-4.) Here, the entire Project Site is over 40 gross acres (DSEIR, p. 5.8-16), including roughly 19-acre Phase 1 area, 14-acre Phase 2 area, and 7-acre Phase 3 area. *The Project Site is too large, and emissions will not be uniform*. The Project is more akin to a regional project that cannot rely on LST methodology. O4.14 cont.

***b. The DSEIR Relies on Illusory Acreage Limits***

The DSEIR assumes only a limited number of acreages would be constructed at any given time, such as: only 4.0 acres during Phase 1 construction (Tbl. 5.1-24); 3.5 acres during Phase 2 construction (Tbl. 5.1-25); and 4.0 acres during Phase 3 construction (Tbl. 5.1-28). However, nothing in the Specific Plan bars construction activities that exceed these assumed (and arbitrary) levels. The Specific Plan clearly anticipates multiple blocks of mixed-use residential development in each development phase (i.e., eleven blocks in Phase 1, six blocks in Phase 2, and three blocks in Phase 3). (See DSEIR, Figs. 3-7 through & 3-9; see also Specific Plan, Development Plan, pp. 3-6 -3-7.) If the DSEIR is going to analyze only 3.5 to 4.0 acres of construction at any given time, then the *Specific Plan must include an enforceable condition that bars construction beyond that level.* O4.15

***c. The DSEIR Fails to Consider New Residences Established During Partial Operation and Construction of Phase Development***

The DSEIR localized impact analysis considers residents outside the Project Site range from 130 to 1,580 feet from the Site. (DSEIR, pp. 5.1-16 – 5.1-17 [fig. 5.1-1].) For example, during Phase 1 construction, the DSEIR utilized 40 meters or roughly 130 feet. (DSEIR, Tbl. 5.1-23 & -24.) However, suppose residential uses are constructed and operational on block 12 prior to the construction of the adjacent blocks 11, 13, and 14—which are much closer than 130 feet away. This scenario can apply in each of the development phases. Absent a new LST analysis, the *Specific Plan should clarify/restrict the construction of buildings that are closer than 40 meters or 130 feet of an established residential use (i.e., consistent with the DSEIR's LST assumptions).* O4.16

***d. Other Inaccurate Distance Assumptions in the Analysis***

For Phase 2 construction, the DSEIR assumed new residential units created in the Phase 1 area would be 40 meters or roughly 130 feet away. (DSEIR, p. 5.1-33 – 5.1-34 [Tbls. 5.1-25 & -26].) However, if residents are established in Block 12 (i.e., Phase 1) and construction starts on Block 9 (i.e., Phase 2), the distance separating them would be approximately 50 feet across a proposed neighborhood street (i.e., Callen's Common). (DSEIR, Fig. 3-12; Specific Plan, Development Plan, p. 3-8.[9]) Hence, the DSEIR's distances assumption is nearly three times further than what could realistically occur under the Specific Plan. Similarly, for Phase 3 construction, the DSEIR assumed residents would be no less than 40 meters or roughly 130 feet away (pp. 5.1-34 – 5.1-35) but in fact they could be as close as 50 feet if Block 10 (Phase 3) is constructed and residents are established in Block 14 (Phase 1) across the aforementioned Callen's Common. (DSEIR, Fig. 3-12; Specific Plan, Development Plan, p. 3-8.) *Absent enforceable limits barring construction within 40 meters or 130 feet from these residents, the DSEIR cannot rely on these unrealistic distance assumptions*. O4.17

[9] Distance per GoogleMaps. (See https://www.google.com/maps/place/1601+W+MacArthur+Blvd,+Santa+Ana,+CA+92704/@33.6970393,-117.8876111,18.93z/data=!4m15!1m8!3m7!1s0x80dcd8dc752c97f9:0x20b30cc912997381!2sS+Bristol+St,+Santa+Ana,+CA!3b1!8m2!3d33.7198403!4d-117.8852523!16s%2Fg%2F1tdqz__n!3m5!1s0x80dcdf2d83ca7e2b:0x9f46beffd14f1ead!8m2!3d33.700529!4d-117.8892662!16s%2Fg%2F11cpp9p0y1?entry=ttu.)

In sum, the DSEIR must be recirculated to include an updated air quality analysis addressing the above issues. Furthermore, to the extent the Project will cause even greater significant air quality impacts, the DSEIR should consider additional mitigation measures and alternatives, including but not limited to those discussed below (*infra* sub-section II.F). O4.18

**D. A MORE ROBUST GHG IMPACT ANALYSIS IS NEEDED**

The California Supreme Court demands a robust GHG analysis to assess a project's impact on climate change. Lead agencies must provide "the contours of their logical argument," leaving no "analytical gaps" in their analysis, and supporting determinations "through substantial evidence and reasoned explanation." (*Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife* ("*Newhall Ranch*") (2015) 62 Cal.4th 204, 227; see also *Cleveland National Forest Foundation v. San Diego Assn. of Governments* ("*Cleveland II*") (2017) 3 Cal.5th 497, 504, 519 [analysis must be "based to the extent possible on scientific and factual data ... stay[ing] in step with evolving scientific knowledge and state regulatory schemes." (Quoting CEQA Guidelines § 15064(b)].)

***1. Project Improperly Removes Previously Adopted CEQA Mitigation to Update City's CAP*** O4.19

The PEIR found GHG would be significant notwithstanding mitigation measure GHG-1 to update its 2015 Climate Action Plan ("**CAP**") to substantially lessen significant GHG impacts. (See PEIR, pp. 1-31 – 1-32, 5.7-37 – 5.7-40.) However, it does not appear that the City has updated its 2015 CAP (DSEIR, p. 5.5-7 – 5.5-8). The DSEIR ignores this by classifying the mitigation measure as "not a project-specific" measure. (Id., p. 5.5-13.) However, this conclusory justification ignores the fact that CAP was intended to include various measures that included project-level mitigation. (See PEIR, pp. 5.7-39.) This amounts to improper removal of CEQA mitigation. (See e.g., *Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1167 [cannot render measures "meaningless by moving ahead with the project in spite of them"]; *Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [mitigation measures cannot be "merely adopted and then neglected or disregarded"]; *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 359 [cannot remove earlier adopted mitigation without "a legitimate reason for deleting an measure" supported by substantial evidence.].)

***2. The DSEIR Breaks from PEIR Thresholds by Not Utilizing SCAQMD Thresholds***

The PEIR utilized SCAQMD's multi-threshold framework, which included a tier 3 bright-line screening threshold of 3,000 MTCO2e, as well as tier 4 efficiency standards of 4.8 and 3.0 MTCO2e/yr/sp for years 2020 and 2035 (respectively). (PEIR, p. 5.7-19 – 5.7-20.[10]) However, the SEIR now abandons this SCAQMD threshold purportedly because it was not a formally "adopted" quantitative threshold. (DSEIR, p. 5.5-12.) This justification is manifestly incorrect when the City O4.20

[10] See also SCAQMD (Oct. 2008) Draft Guidance Document – Interim CEQA GHG Significance Threshold, pp. 3-10 – 3-16, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf; SCAQMD (12/5/08) Board Letter, p. 5, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2; SCAQMD (9/28/10) Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group # 15, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf.

routinely utilizes this threshold despite not being formally adopted. (See e.g., April 2022 GPU PEIR, p. 5.7-19; January 2020 Bowery Mixed-Use Project Draft EIR,[11] pp. 5.6-9 – 5.6-10; March 2022 Santa Ana Off-Premises Commercial Advertising Signs Mitigated Negative Declaration["**MND**"],[12] pp. 53-54; June 2017 AMG Family Affordable Apartments Project GHG study,[13] pp. 4.1 – 4.2; December 2019 7-Eleven Service Station Project MND,[14] pp. 78-79; September 2020 Septic to Gravity Sewer Conversion Project MND,[15] p. 4-28; November 2021 Washington Avenue Well Project MND,[16] p. 3-46; June 2020 Mountain View St. Condo project MND,[17] p. 51; August 2019 Centennial Park/Santa Ana College Park Replacement Project MND,[18] p. 70.)

O4.20 Cont.

***3. Project Exceeds Both Tier 3 and Tier 4 SCAQMD Thresholds***

Here the Project exceeds SCAQMD thresholds. As summarized in DSEIR Table 5.5-4, the entire Project Site currently generates a total of 16,138 MTCO2e/yr, as compared to the anticipated 35,285 MTCO2e/yr that will be generated once all Project phases are constructed (i.e., Project emissions), which reflect a 19,147 MTCO2e/yr net increase in emissions. These emissions far exceed SCAQMD's tier 3 bright-line screening threshold of 3,000 MTCO2e/yr that the City routinely uses (discussed supra). Furthermore, when dividing the Project's annual GHG emissions (i.e., 35,285 MTCO2e/yr) by its 10,330-service population ("**sp**") (i.e., 9,238 residents + 1,092 employees) (DSEIR, pp. 5.10-8 – 5.10-9), the Project achieves an efficiency level of 3.41 MTCO2e/yr/sp—which exceeds SCAQMD's tier 4 efficiency standard of 3.0 MTCO2e/yr/sp for year 2035 (discussed supra). Exceeding SCAQMD thresholds is substantial evidence of a significant impact requiring mitigation. (See e.g., *IBC Business Owners for Sensible Development v. City of Irvine* (2023) 88 Cal.App.5th 100, 130.)

O4.21

***4. Failing to Apply Efficiency Threshold is Not Consistent with Evolving Standards***

Despite being proposed prior to the State's adoption of more aggressive GHG reduction goals of 40 percent 1990 levels by 2030 (i.e., SB 32 and Executive Order B-30-15), SCAQMD's screening/efficiency thresholds are akin to and most consistent with bright-line/efficiency thresholds adopted by numerous other air districts in recent years, including Sacramento

O4.22

[11] https://files.ceqanet.opr.ca.gov/254251-3/attachment/oKmaKOysHiueNrcl17gaNud1mW6vaEQvBCfwq8Pky23qUt0AX7dEOmX6wO9d4a185Q9xUu0pMThkaiTE0.
[12] https://files.ceqanet.opr.ca.gov/276916-1/attachment/EYczSw0wMTgF4p4RKAsxhS7SgQE8REeLm7wazFYbc1AlFNb6lNEGBzyUYPexk8OD5NwETGAgs81Ap69R0.
[13] https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/04/185703389_GHG_Report.pdf.
[14] https://www.santa-ana.org/documents/draft-mnd-7-11-on-euclid-and-hazard/.
[15] https://files.ceqanet.opr.ca.gov/265429-2/attachment/29fD34N0Z5uBGUG6Ws41ODNk6Q5K-r3LbOl9KlbCLz0hQE0xhpZS7qwrJTgHXi1V_Atw6ySOJuEZ-H0a0.
[16] https://files.ceqanet.opr.ca.gov/274066-1/attachment/jc3Rrpwu2ESqK3NBTHnLl5WX7U7cyRWMM7p_E2kDZcaPqBU3QFL7a8wxFTU3lEkRAbT1M4Gs8S4RIfrh0.
[17] https://files.ceqanet.opr.ca.gov/262304-2/attachment/ncFOPJzYvEKL2P1ktZ_KdBxPAowcp1mbhg0N62H2VCkB36dY4NoH8L2W6Jn_55ProjTvGQBSlVosrWO0.
[18] https://files.ceqanet.opr.ca.gov/254761-2/attachment/l5RHF7zrLJaby-5-6iYaLXHXnnKvHWIlkTELLb6BjLa_ouKqfiRIX9CxUmvzODfT6TNqPb-DM8nkyYsp60.

Metropolitan AQMD,[19] Bay Area AQMD,[20] Placer County APCD,[21] and San Luis Obispo County APCD.[22] Similarly, the Association of Environmental Professionals ("**AEP**") has proposed a 2030 land-use efficiency threshold of 2.6 MTCO2e/yr/sp based on SB 32 mid-term GHG reduction goals for 2030.[23] By failing to apply a performance threshold to the Project, the DSEIR not only breaks from the PEIR methodology but also fails to stay in step with evolving scientific knowledge and regulatory schemes governing GHG, as required under *Cleveland II*.

O4.22 Cont.

In sum, the DSEIR must be recirculated to include an updated GHG analysis addressing the above issues. Furthermore, to the extent the Project is inconsistent with the relevant GHG performance thresholds, the DSEIR should consider additional mitigation measures and alternatives, including but not limited to those discussed below (*infra* sub-section II.F).

## E. A VMT Analysis is Warranted

CEQA requires analysis of VMT traffic impacts related to a project. (See *Kings County Farm Bureau v. Hanford* (1990) 221 Cal.App.3d 692, 727.) In particular, CEQA requires analysis of project-related traffic impacts in a manner that does not minimize cumulative impacts. (See e.g., *Cleveland III*, 17 Cal.App.5th at 444-445 [on remand, traffic analysis based on methodology with known data gaps that underestimated traffic impacts necessarily prejudiced informed public participation and decisionmaking]; *Kings County Farm Bureau*, supra at 718, 727 [rejecting

O4.23

[19] SMAQMD (May 2018) Guide to Air Quality Assessment in Sacramento County, pp. 6:1-3, 6:10-12 ("(GHG) emissions adversely affect the environment through contributing, on a cumulative basis, to global climate change ... *the District recommends that lead agencies address the impacts of climate change on a proposed project and its ability to adapt to these changes in CEQA documents* ... [thus urging] evaluating whether the GHG emissions associated with a proposed project will be responsible for making a cumulatively considerable contribution to global climate change."[emphasis original]]), http://www.airquality.org/LandUseTransportation/Documents/Ch6GHGFinal5-2018.pdf; *see also* SMAQMD Thresholds of Significance Table, http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf.

[20] BAAQMD (May 2017) CEQA Air Quality Guidelines, p. 2:1-4 ("No single project could generate enough GHG emissions to noticeably change the global average temperature [but rather] [t]he combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts."), http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[21] PCAPCD (Oct. 2016) CEQA thresholds of Significance Justification Report, pp. E-2, 2, 17-22 ("CEQA requires that the lead agency review not only a project's direct effects on the environment, but also the cumulative impacts of a project and other projects causing related impacts. When the incremental effect of a project is cumulatively considerable, the lead agency must discuss the cumulative impacts in an EIR. [citing CEQA Guidelines § 15064]"), https://www.placer.ca.gov/DocumentCenter/View/2061/Threshold-Justification-Report-PDF; *see also* PCAPCD (11/21/17) CEQA Thresholds and Review Principles, http://www.placerair.org/landuseandceqa/ceqathresholdsandreviewprinciples.

[22] SLOAPCD (Mar. 28, 2012) GHG Threshold and Supporting Evidence, p. 5, 25-30, 42 ("No single land use project could generate enough GHG emissions to noticeably change the global average temperature. Cumulative GHG emissions, however, contribute to global climate change and its significant adverse environmental impacts. Thus, the primary goal in adopting GHG significance thresholds, analytical methodologies, and mitigation measures is to ensure new land use development provides its fair share of the GHG reductions needed to address cumulative environmental impacts from those emissions.), https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Greenhouse%20Gas%20Thresholds%20and%20Supporting%20Evidence%204-2-2012.pdf.

[23] AEP (Oct. 2016) Beyond Newhall and 2020, pp. 25, 34, 40 (also identifying other air districts that have adopt/proposed similar screening/efficiency thresholds, https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf.

determination that less than one percent to area emissions was less than significant because analysis improperly focused on the project-specific impacts and did not properly consider the collective effect of the relevant projects on air quality]; *Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1072 [upheld the use of same thresholds for immediate and cumulative impacts when its application was "undoubtedly more stringent cumulative-impact threshold"]; *Al Larson Boat Shop, Inc. v. Board of Harbor Comm'rs* (1993) 18 Cal.App.4th 729, 749 [upheld where cumulative impacts were not minimized or ignored].) The relevant inquiry is not only the relative amount of increased traffic that the Project will cause but whether any additional amount of Project traffic should be considered significant in light of the already serious problem. (See *Los Angeles Unified School District v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1025.) **O4.23 Cont.**

Here, the SEIR does not analyze VMTs because the Project is located within a transit priority area ("**TPA**") and, thus, purportedly exempt under the City's Traffic Impact Study ("**TIA**") Guidelines.[24] (DSEIR, p. 5.13-21.) However, mere compliance with a threshold does not relieve the City from the need to "consider substantial evidence indicating that the project's environmental effects may still be significant." (CEQA Guidelines 15064(b)(2); see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108 ["thresholds cannot be used to determine automatically whether a given effect will or will not be significant."].) Here, there is substantial evidence that the TPA exemption is not appropriate and that the Project's VMT may be significant, given the following: **O4.24**

1. The TPA exemption under the City's TIA Guidelines is largely based on State Office of Policy and Research ("**OPR**") VMT Technical guidance that confirms the exemption provides merely a presumption of less than significance, which can be overcome when the lead agency is presented with substantial evidence that VMTs may nevertheless be significant (such as the case here).[25]

2. The Project is located within an area identified as generating higher VMTs than the Orange County Regional Average. (City TIA Guidelines, Appendix B; see also DSEIR, APP-O, PDF p. 18.) **O4.25**

3. The sheer size/length of the redevelopment project is highly unusual for a generic TPA exemption. For example, within its GHG modeling worksheets, the DSEIR shows that the completed Project will generate 59,304,126 VMTs per year, including: Phase 1 will generate a total of 31,347,187 VMTs per year (inclusive of apartment, retirement community, commercial, and hotel uses) (DSEIR, APP-I, PDF p. 150); Phase 2 will generate a total of 11,412,518 VMTs per year (inclusive of apartment and commercial uses) (id., at PDF p. 247); and Phase 3 will generate a total of 16,544,421 VMTs per year (inclusive of apartment and commercial uses) (id., at PDF p. 353). This is a substantial number of VMTs. **O4.26**

4. A more robust and objective RTP/SCS consistency analysis should be required. Under the City's TIA Guidelines, a project within a TPA area still must under a secondary screening step to verify its consistency with assumptions from the applicable RTP/SCS. (See City TIA Guidelines, p. 3.) Here, the DSEIR claims the Project is consistent with RTP/SCS assumptions (p.) based on vague goals, such as encouraging economic property, improving mobility, **O4.27**

[24] https://storage.googleapis.com/proudcity/santaanaca/uploads/2022/03/Santa-Ana-VMT-TIS-Guidelines.pdf.
[25] OPR Technical Assistance, pp. 13-14, https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

supporting health communities, and similar vague goals under the RTP/SCS entirely untethered to any objective data or assumptions in the RTP/SCS. (See DSEIR, p. 5.13-21; id., APP-O, PDF pp. 7-8.[26]) Consistent with the City's TIA Guidelines, the appropriate secondary screening step should be to compare the Project's VMT per service population ("**VMT/SP**") performance to the RTP/SCS assumptions *at the Traffic Analysis Zone ("**TAZ**") level*. (City TIA Guidelines, p. 8.) Absent this comparison, there is simply no objective metric to ensure the Project will achieve the VMT/SP assumed in the RTP/SCS. **O4.27 Cont.**

5. By failing to conduct a VMT analysis, the DSEIR fails to confirm that the Project's VMTs fall within the PEIR's VMT assumptions. For example, the PEIR determined that the City's 2020 baseline of 22.5 VMT/SP, and that the GPU would result in 20.3 VMT/SP by the year 2045 under the plan. (See PEIR, Tbls. 5.16-2 & 5.16-3.) Here, there is no objective data demonstrating that the Project will achieve this level of VMT/SP and, thus, it likely is not within the scope of the prior PEIR. **O4.28**

In sum, the DSEIR must be recirculated to include a specific VMT analysis of the Project's VMT impacts. Furthermore, to the extent the Project is inconsistent with VMT assumptions, the DSEIR should consider additional mitigation measures and alternatives, including but not limited to those discussed below (*infra* sub-section II.F).

## F. MITIGATION MEASURES ARE INADEQUATE

### *1. Reliance on Illusory Mitigation Measures*

Under CEQA, mitigation measures must be enforceable and not illusory—such as vague goals lacking performance standards. (See e.g., *Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260; *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 522; *Cleveland Nat'l Forest Found v. San Diego Ass'n of Gov'ts* (2017) 17 Cal.App.5th 413, 433.) Here, DSEIR relies on a variety of inadequate mitigation measures affecting air quality, GHG emissions, and VMTs, for example: **O4.29**

- *MM AQ-3 (Vehicle Trip Reduction)* requires a Transportation Demand Management ("**TDM**") program intended to reduce mobile GHG emissions for all uses. (DSEIR, p. 1-17.) However, the TDM does not impose a specific performance level. Additionally, the TDM only requires information to be provided for proposed residential rental units. There is no explanation why it is limited to only rentals (but not for-sale units) or why additional TDM strategies are not considered.

- *MM GHG-1 (Solar Panels)* requires solar panels to be installed "based on the maximum roof area available for solar." (DSEIR, p. 1-29 – 1-30, pp. 5.3-13.) However, there is no requirement or discussion of how efficient said solar panels must be. More efficient panels can generate greater amounts of solar energy. The DSEIR should revise the measure to include a performance level that accounts not only maximum roof area available but also for the most efficient solar panels feasible to use on the Site. Furthermore, the measure only states that onsite battery storage "may" be utilized (instead of requiring it to be utilized) in the event SCE limits the export of energy. This should also be revised. **O4.30**

[26] While the DSEIR copy-pastes the PEIR's RTP/SCS consistency analysis citing the same vague/non-objective goals (APP-O, PDF p. 23-28), the PEIR included an objective VMT/SP analysis that the DSEIR fails to perform.

- *MM GHG-3 (Landfill Waste)* requires 75 percent of waste to be diverted from landfills but only requires the site to meet City standards for Recyclable Collection and Loading Areas. (DSEIR, p. 1-31.). Entirely missing is any specific requirement in furtherance of the organic waste collection services to all residents and businesses under SB 1383. (Id., at pp. 5.5-25, APP-I, PDF p. 38.) The DSEIR fails to discuss any specific feasible measures that could be implemented on the entire Project Site, such as: setting up a food recovery program that could establish economies of scale for the entire Site; establishing a local community composting area; requiring outside composting bins or residential composting devices (commonly referred as "foodcyclers") at each residential unit;[27] establish Site-wide organics waste collection that could then be leveraged as feedstock to a future anaerobic digestion facility; and/or require a portion of the Site to be served by SB1383 byproducts on site (e.g., compost, biogas, etc.).[28] O4.31

### *2. Additional Measures Should Be Considered and, If Not Incorporated, There Should Be an Explanation as To Why They Are Not Feasible*

The DSEIR does not state what additional measures were considered or that any such additional measures, if considered, were found to be "truly infeasible." (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 525 [citing *City of San Diego v. Board of Trustees of California State University* (2015) 61 Cal.4th 945, 967].) Here, the DSEIR should consider additional mitigation measures, such as: O4.32

1. *Requiring a percentage of residential units to be affordable units*, which multiple public agencies recognize as a means of reducing VMTs and mobile emissions affecting air quality and GHG.[29]

2. *In-lieu fees for park/recreational land should be required and tied to a program to secure additional parkland space near the Project Site over the course of the Project construction.* O4.33

3. *Require more robust TDM measures for hotel operations*. For example, a hotel-specific TDM program could include: O4.34

   - Specific performance level to be reached (e.g., specific VMT and/or average daily trip reduction);
   - Specified participation level (e.g., 100 % employees);

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[27] See e.g., https://www.nytimes.com/wirecutter/guides/how-to-start-composting/; https://www.whygoodnature.com/blog/reducing-food-waste-with-the-vitamix-foodcycler#:~:text=Some%20people%20just%20keep%20their,how%20long%20compost%20bins%20take; https://foodcycler.com/.
[28] See e.g., https://calrecycle.ca.gov/organics/slcp/capacityplanning/recycling/; https://calrecycle.ca.gov/organics/slcp/; https://ww2.arb.ca.gov/our-work/programs/slcp/resources.
[29] See e.g., California Air Resources Board ("**CARB**") 2022 Scoping Plan, Appendix D, pp. 23, https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents; CARB's 2017 Scoping Plan, Appendix D, pp. 2, https://www.arb.ca.gov/cc/scopingplan/app_b_local_action_final.pdf; SCAG's 2020 RTP/SCS Program EIR, ibid, pp. 2.0-42, https://scag.ca.gov/sites/main/files/file-attachments/dpeir_connectsocal_executivesummary.pdf?1606002543; California Air Pollution Control Officers Association ("**CAPCOA**") GHG Reductions Handbook, pp. 73, 76, 80-96, https://www.caleemod.com/documents/handbook/full_handbook.pdf; OPR Technical Advisory, pp. 27, http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf.

- Participation in guarantee ride programs;
- Incentives for employee carpool/vanpool access like preferential parking spaces and/or access to hotel valet service; and
- Dedicated shuttle service for hotel patrons to nearby destinations.[30]

O4.34 Cont.

4. *Implementing hotel-specific recycling and food waste program*. For example, the City should consider hotel-specific recycling and waste reduction programs that include:

- Promotion of recycled paper and other products like soap;
- Bans on disposable (i.e., designed to be used once and discarded) food ware items and accessories;
- Allowing customers to bring their own reusable items (if permissible, this be waived to accommodate kosher or other religious standards);
- Requirements for hand soap in refillable containers;
- Bans on promotional items made of plastic;
- Prohibitions on providing water in plastic bottles or disposable single-use cups;
- Prohibitions on expanded polystyrene (i.e., Styrofoam);
- Requirements for reusable napkins and tablecloths with recyclable disposable napkins only allowed for takeout; and

O4.35

- Provision of hand dryers in areas accessible to customers.
- Require use of reusable laundry bags;
- Providing reusable dishware for room service;
- Elimination of coffee pods/coffee machines that require pods;
- Offering toothpaste tablets in refillable packaging such as glass bottles or jars;
- Providing bamboo toothbrushes;
- Offering toiletries on request rather than automatically;
- Using key cards made out of non-plastic materials, including traditional metal keys or wood, bamboo, and paper options for chip-based cards;
- Incentivize the returning of room keys to discourage waste;
- Proving non-plastic shower caps, razor, shaving cream, slippers, eye mask, ear plugs;
- Removing minifridge items that use plastic;
- Eliminating the use of garbage bags if possible, or use based on compostable material;
- Choosing home compostable gloves;
- Preventing the use of plastic wrap;
- Serving employee meals with reusable dishware and cutlery, as well as provide reusable water bottles for all employees with accessible water bottle refill stations;
- Replacing paper towels with reusable dish rags; and
- Sourcing plastic-free sponges.[31]

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[30] See e.g., Santa Monica Municipal Code § 9.5.130(B)(2)(b); https://www.octa.net/getting-around/rideshare/oc-rideshare/employers/guaranteed-ride-home-program/; https://www.ci.healdsburg.ca.us/AgendaCenter/ViewFile/Item/3098?fileID=21731.

[31] See e.g., https://www.nytimes.com/2022/05/17/travel/clean-the-world-hotel-soap.html; https://freakonomics.com/podcast/the-economics-of-everyday-things-used-hotel-soaps/; https://cleantheworld.org/; https://bluestandard.com/guides/hotel-guide/; https://clkrep.lacity.org/onlinedocs/2021/21-0064_ord_187718_1-23-23.pdf.

5. *Additional measures recommended by public agencies* that reduce emissions and/or VMTs, such as:

- Using greywater systems;
- Using lighter-colored pavement and cool roofs where feasible;
- Installing smart HVAC systems that automatically adjust based on occupancy;
- Using cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
- Incorporating the neighborhood electric vehicle networks;
- Unbundling parking costs and/or providing parking case-out programs;
- Promoting telework options by ensuring high-speed internet (e.g., fiber-optic);
- Developing/updating the City's CAP that includes project-specific measures applicable to future developments on the Project Site;
- Achieving Net-Zero GHG emissions;
- Purchasing carbon offset credits.[32]

O4.36

Local 11 urges the City to recirculate the DSIER to correct its underestimation of the Project's significant impacts and to consider revised and additional mitigation measures, including those listed above.

O4.37

## G. THE DSEIR FAILS TO IDENTIFY OVERRIDING CONSIDERATIONS

When approving a project that will have significant environmental impacts not fully mitigated, a lead agency must adopt a "statement of overriding considerations," finding that the project's benefits outweigh its environmental harm. (Pub. Res. Code § 21081(b); see also CEQA Guidelines § 15043; *Sierra Club v. Contra Costa County* (1992) 10 Cal.App.4th 1212, 1222; *Lawler v. City of Redding* (1992) 7 Cal.App.4th 778.) An overriding statement expresses the larger, more general reasons for approving the project, such as the need to create new jobs, provide housing, generate taxes, and the like. (See *Concerned Citizens of S. Central LA v. Los Angeles Unif. Sch. Dist.* (1994) 24 Cal.App.4th 826, 847.) It must fully inform and disclose the specific benefits expected to outweigh environmental impacts, supported by substantial evidence. (See CEQA Guidelines §§ 15043(b) & 15093(b); see also *Sierra Club*, 10 Cal.App.4th at 1223.) However, an agency may adopt a statement of overriding considerations *only after* it has imposed all feasible mitigation measures to reduce a project's impact to less than significant levels. (See CEQA Guidelines §§ 15091 & 15126.4.) Hence, decisionmakers may not approve a project when feasible mitigation measures can substantially lessen or avoid such impacts. (See e.g., Pub. Res. Code § 21002; CEQA Guidelines § 15092(b)(2).) So too, additional overriding considerations may be necessary to adequately override those additional impacts that the DEIR underestimates.

O4.38

To the extent that overriding considerations are needed, key among the findings that the lead agency must make is that:

> "Specific economic, legal, social, technological, or other considerations, including the provision of *employment opportunities*

[32] Supra fn. 29 (CARB's 2022 Scoping Plan, pp. 4, 7, 24, 29; CARB's 2017 Scoping Plan, pp. 1-8; SCAG's 2020 RTP/SCS Program EIR, pp. 2.0-23 – 2.0-25, 2.0-40 – 2.0-43; CAPCOA GHG Reductions Handbook, pp. 31-32; OPR Technical Advisory, p. 27.)

> *for highly trained workers*, make infeasible the mitigation measures or alternatives identified in the environmental impact report ... [and that those] benefits of the project outweigh the significant effects on the environment." (Pub. Res. Code § 21081(a)(3) & (b), emphasis added.)

O4.38 cont.

Here, the DSEIR admits significant impacts on air quality and parks/recreation services impacts. In addition to underestimated VMT and GHG impacts (as described herein), the *City should consider the overriding benefits to hospitality workers that service the Project Site and who will likely suffer the brunt of significant VMT impacts that have a direct link to air quality and climate change impacts caused by the Project*.

## III. CONCLUSION

In closing, Local 11 respectfully requests the City recirculate the Draft SEIR to cure the flawed and missing analysis affecting air quality, GHGs, VMTs, land use consistency with applicable affordable housing policies, and impacts on parkland. So too, the DSEIR should consider additional mitigation measures, including but not limited to:

O4.39

1. Requiring a percentage of residential units to be affordable units;
2. Establishing clear park in-lieu fees tied to a capital program of securing additional parkland space near the Project Site over the course of the Project construction; Including a robust hotel-specific TDM program;
3. Implementing a hotel-specific recycling and waste reduction program; and
4. Additional measures that reduce emissions and/or VMTs consistent with existing government programs.

Local 11 reserves the right to supplement this appeal justification at future hearings and proceedings for this Project. (See *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1120 [CEQA litigation not limited only to claims made during EIR comment period].) This Office requests, to the extent not already on the notice list, all notices of CEQA actions and any approvals, Project CEQA determinations, or public hearings to be held on the Project under state or local law requiring local agencies to mail such notices to any person who has filed a written request for them. (See Pub. Res. Code §§, 21092.2, 21167(f) and Gov. Code § 65092.) Please send notice by electronic and regular mail to Jordan R. Sisson, Esq., 801 S. Grand Avenue, 11th Floor, LA, CA 90017 (jordan@gideonlaw.net).

O4.40

Thank you for your consideration of these comments. We ask that this letter be placed in the Project's administrative record.

Sincerely,

LAW OFFICE OF GIDEON KRACOV

Jordan R. Sisson
Attorney for UNITE HERE Local 11

**Response to Comment Letter O4: UNITE HERE Local 11**

**Response O4.1:** This comment provides an introduction to the letter regarding the Project and provides a summary of the Project description and the discretionary actions that the City would consider, as the Lead Agency. The comment is introductory in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response O4.2:** This comment does not provide substantial evidence of a significant environmental impact. In regard to the provision of affordable units by the Project, the proposed Specific Plan does not include specific requirements for affordable units. However, the proposed Project would result in a residential density of 91 du/ac, which would allow the potential for each proposed residential or mixed-use development to include affordable residential units. Section 3.6 of the proposed Specific Plan describes that the City of Santa Ana has established an Affordable Housing Opportunity and Creation Ordinance (AHOCO) to encourage the development of housing that is affordable to a range of households with varying income levels. The Ordinance is applicable to new residential projects within the Specific Plan area that meet certain criteria. As implementing projects in the Specific Plan area are submitted to the City for review, they would be required to comply with the City's AHOCO or the Project's Development Agreement when approved.

Regarding in-lieu fees for parkland, Section 5.12, *Parks and Recreation*, of the Draft Supplemental EIR describes that the proposed Project would provide approximately 17.21 acres of public and private open space, inclusive of 13.1 acres of publicly accessible open space and recreational facilities onsite. Municipal Code Section 34-204 sets forth the requirements for the dedication of land for parks and recreational purposes, and that for multi-family developments, Section 34-204 requires 0.005 acres or 209.1 SF of land to be dedicated for parks or recreational purposes per dwelling unit. In addition, it describes that Municipal Code Sections 35-110 and 35-111 require that any person adding net residential units or converting apartments to condominiums in the City of Santa Ana shall pay parkland fees to the City prior to the issuance of a building permit. Thus, the in-lieu fees related to parkland are consistent with the City's existing regulations and were described in the Draft Supplemental EIR and would be required in order to implement the Project.

In regard to the Draft Supplemental EIR's air quality, GHG, and VMT analysis, the City disagrees with the commenter's assertion that the Draft Supplemental EIR does not properly analyze or disclose impacts related to air quality and GHG emissions or VMT. The Draft Supplemental EIR does adequately analyze the Project's air quality and GHG impacts in Section 5.1, *Air Quality*, and Section 5.5, *Greenhouse Gas Emissions*. Also, the VMT analysis is included in Section 5.13, *Transportation*, starting on page 5.13-21, and determined that impacts would be less than significant and no mitigation measures are required. The comment does not provide any supporting detail or substantive evidence related to a potential air quality, greenhouse gas emissions, or VMT impact that would occur from the Project or a specific detailed concern about the Draft Supplemental EIR analysis of these topics. Therefore, no further response is required or provided.

**Response O4.3:** The comment does not provide any evidence that the suggested mitigation measures would lessen a significant impact identified in the Draft Supplemental EIR. In regard to mitigation for affordable housing, the comment does not identify any potential environmental impacts related to affordable housing units. Affordable housing is an economic and social issue. CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's potential economic and social effects are not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of the Project's economic or social effects. Because no environmental impacts related to affordable housing would occur, mitigation measures are not required.

Regarding mitigation for in-lieu fees, as described previously in Response O4.2, the proposed Project would be required to pay in-lieu fees that are required pursuant to the City's Municipal Code Sections 35-108, 35-110, and 35-111, which are based on the Mitigation Fee Act (Government Code Sections 66000, et seq). Thus, future payment of park in-lieu fees is required per the City's Municipal Code and will be paid prior to implementation of future development Projects within the Specific Plan.

Regarding a Traffic Demand Management (TDM) program, Section 1.0, *Executive Summary*, and Section 5.1, *Air Quality*, of the Draft EIR include Mitigation Measure AQ-3, which requires a TDM plan to reduce mobile GHG emissions for all uses. Mitigation Measure AQ-3 includes specific requirements for non-residential uses that would be applicable to the proposed hotel use, such as ride-matching assistance, preferential carpool parking, flexible work schedules for carpools, half-time transportation coordinators, providing a web site or message board for coordinating rides, designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles, and including bicycle end of trip facilities. Mitigation Measure AQ-3 requires that a TDM plan be approved by the City of Santa Ana prior to the issuance of building permits.

In regard to mitigation for food recycling, the proposed hotel use and all proposed food related commercial uses are required to implement a food waste program pursuant to AB 1826 that requires businesses to recycle organics. In addition, the commercial uses involving food would be required to implement an edible food donation and recovery program that is required pursuant to SB 1383 that establishes targets to reduce food waste that would otherwise end up in the landfill, and to increase edible food recovery by 20%, by 2025. SB 1383 requires food generators to donate to food recovery organizations (such as food banks and/or food pantries) the maximum amount of edible food they would otherwise throw away, and that this be implemented and tracked by the City. Implementation of both of these requirements would be ensured through the City's development and business occupancy permitting.

Regarding the VMT analysis, the comment does not identify specific recommendations to reduce emissions and the VMT analysis is included in Section 5.13, *Transportation*, starting on page 5.13-21, determined that impacts would be less than significant, and no mitigation measures are required. Therefore, no further response is required or provided.

Regarding recirculation of the Draft Supplemental EIR, as substantiated by the responses above and below, none of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.4:** This comment provides a general introduction to Local 11 and describes its interest in advocating for environmental sustainability and standing in challenging project approvals. This comment does not provide any comments about the proposed Project and does not raise a specific issue with the adequacy of the Draft Supplemental EIR. Therefore, no further response is required or provided.

**Response O4.5:** This comment does not provide any comments about the proposed Project and does not raise a specific issue with the adequacy of the Draft Supplemental EIR. However, in regard to City policies for housing, it should be noted that the proposed Project would implement housing in an area where housing does not exist and would expand housing in the City by providing new housing on a site that was previously developed with large surface parking lots and non-residential uses. Thus, the proposed Project would increase the land available for housing and housing stock within the City. Section 5.10, *Land Use and Planning*, of the Draft Supplemental EIR details the Project's consistency with land use and municipal code regulations related to housing.

**Response O4.6:** In regard to affordable housing and the Project's consistency with affordable housing goals, as detailed in Response O4.3, affordable housing is an economic and social issue. CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's potential economic and social effects are not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of the Project's economic or social effects, including the provision of affordable housing. Nevertheless, the Project would be consistent with the policies set forth by the SCAG RTP/SCS to promote diverse housing choices as demonstrated on Table 5.8-1 of the Draft Supplemental EIR and with City policies to expand housing opportunities.

However, the development resulting from the proposed Specific Plan would be required to implement all City ordinances related to the provision of affordable housing unless they are superseded by the Development Agreement. Further, such economic and social effects are important and will be considered by the City's decision makers in determining what action to take on the proposed Project, and future specific housing developments. The Planning Commission and City Council will hold publicly-noticed hearings to consider the proposed Specific Plan Project, which will include consideration of the Project's merits (including economic and social effects).

**Response O4.7:** In regard to recirculation and affordable housing requirements, as described in Response O4.6, affordable housing is an economic and social issue that is not covered by CEQA, which focuses on impacts to the environment. Because affordable housing is not an environmental impact, mitigation measures pursuant to CEQA are not required. Further, as detailed in Draft Supplemental EIR Section 6.0, *Alternatives*, the selection and analysis of CEQA alternatives are based on the feasibility to avoid or lessen significant environmental impacts (pursuant to CEQA Guidelines Section 15126.6(a)). Because affordable housing related issues do not constitute an environmental impact, an alternative that includes mandatory affordable unit requirements is not required. However, it should be noted that City Ordinance No. NS-3019 and the Project's Development Agreement includes affordable unit requirements or in-lieu fee payments that would be implemented, as ensured through the City's development review and permitting process.

As substantiated by the responses above and below, none of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.8:** Regarding an assessment of the Project's impacts on biological resources, biological resources were evaluated in Section 5.16, *Mandatory Findings of Significance*, on pages 5.16-8 through 5.16-10, which determined that potentially significant impacts related to biological resources would not occur from implementation of the proposed Project. As discussed on Draft Supplemental EIR page 5.16-9, the Project site is developed with 16 commercial buildings surrounded by paved surfaces within a completely urbanized area. The comment does not identify any specific potential environmental impacts related to biological resources; thus, no further response related to this topic is required or provided.

In regard to recreational impacts and payment of in-lieu fees, as described previously in Response O4.2, the proposed Project would be required to pay in-lieu fees that are required pursuant to the City's Municipal Code Sections 35-108, 35-110, and 35-111, which are based on the Mitigation Fee Act (Government Code Sections 66000, et seq. The existing City municipal codes and the requirements for provision of parkland

and/or in-lieu fees be paid prior to building permitting provides a means of monitoring/enforcing these provisions. As such, the in-lieu fees would be an existing regulatory requirement placed on all projects within the City of Santa Ana and would not constitute mitigation under CEQA as mitigation measures are above- and beyond existing laws, regulations, and requirements that would reduce environmental impacts. In addition, while not meeting the 3.0 standard, the Project proposes to provide approximately 1.4 acres of publicly accessible open space per 1,000 residents, which exceeds the approximately 1.2 acres per 1,000 residents currently existing within the City. Further, as discussed on page 5.12-6 of the Draft Supplemental EIR, the City of Santa Ana is essentially fully built out and there is a lack of available vacant land to develop substantial new parks or expand existing recreational facilities. Therefore, there would be no feasible mitigation measures that would be able to reduce the proposed Project's contribution to significant impacts related to the City's unsatisfactory level of resident to parkland ratio and impacts would be significant and unavoidable.

Regarding recirculation of the Draft Supplemental EIR, as substantiated by the responses above and below, none of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.9:** In regard to overlapping/concurrent construction of multiple phase areas, Section 3.0, *Project Description*, of the Draft Supplemental EIR identifies the proposed Specific Plan construction phasing. An overlap of construction phasing is speculative as that is not currently proposed by the Project. As described in Chapter 6 of the Specific Plan, construction of Phase 1 is expected to commence in the first quarter of 2026 with completion in the first quarter of 2030. Existing land uses in the Phase 2 and Phase 3 areas would be operational while Phase 1 is under construction. Phase 2 is expected to commence in the second quarter of 2030 with completion in the fourth quarter of 2032. Phase 3 is expected to commence in the first quarter of 2033 with completion in the second quarter of 2036. As a Draft Supplemental EIR for a Specific Plan, the EIR is not required to analyze a speculative overlap of construction phasing. As substantiated by CEQA case law, the Draft Supplemental EIR is not required to analyze impacts from worst-case hypothetical buildout conditions as this analysis would be speculative (Napa Citizens for Honest Government v. Napa County Board of Supervisors (2001) 91 Cal.App.4th 342, 373 ["[a]n EIR is not required to engage in speculation in order to analyze a 'worst case scenario.'"].) The Draft Supplemental EIR's analysis is based on reasonable assumptions regarding buildout, including analyzing the potential impact of multi-phase construction on Project-established uses, as well as surrounding existing uses. The commenter is referred to the Draft Supplemental EIR's noise and air quality analyses, for instance, which consider the potential impacts of each phase on existing off-site and future on-site receptors. Future projects pursuant to the Specific Plan would undergo Development Project Review by the City, which would ensure that they are developed consistent with the assumptions set forth in the Supplemental EIR, including assumptions for phasing. Further, pursuant to General Plan Final EIR Mitigation Measure AQ-1, any change to the Project that requires a discretionary approval by the City of Santa Ana would require preparation of a technical assessment evaluating potential project construction-related air quality impacts and inclusion of additional mitigation measures, beyond those already identified in this Supplemental EIR. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.10:** In regard to construction emissions overlapping with existing operational emissions, as described in Section 5.1, *Air Quality*, of the Draft Supplemental EIR (page 5.1-20), an air quality analysis pursuant to SCAQMD criteria, focuses on the nature and magnitude of the *change* in the air quality environment due to *implementation of the proposed Project*, based on the maximum development assumptions (e.g., the net change). Thus, the calculation of potential air quality impacts is based on the emissions that

would be generated by the proposed Project and not by the existing operational emissions within an area (including the existing Phase 2 and 3 areas). In actuality, the existing regional emissions (including those from the existing development on the site) assist in setting the air quality emissions thresholds. The SCAQMD thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent federal or state ambient air quality standard based on the existing regional emissions. For this reason, air quality emissions thresholds are different in different air basins throughout the State. Overall, the air quality analysis of impacts of the proposed Project appropriately identifies emissions from the proposed Project, and pursuant to SCAQMD and CalEEmod emissions modeling criteria, evaluates the proposed Project's potential to cause or contribute to an impact on the environment. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.11:** In regard to construction emissions overlapping with existing operational emissions, as described in Response O4.10, pursuant to SCAQMD methodology the calculation of potential air quality impacts is based on the emissions that would be generated by the proposed Project and not by the existing operational emissions within an area (including the existing Phase 3 area). The air quality analysis appropriately identifies emissions generated by the proposed Project and compares those emissions to the SCAQMD thresholds. Section 5.1, *Air Quality*, of the Draft Supplemental EIR also includes mitigation measures to reduce the Project's construction emissions. Overall, the air quality methodology included in the Draft Supplemental EIR is consistent with SCAQMD methodology, and no additional analysis is required.

**Response O4.12:** In regard to overlapping net operational emissions from Phase 1 and Phase 2 and Phase 3 construction, as described in Responses O4.10 and O4.11, pursuant to SCAQMD methodology the calculation of potential air quality impacts is based on the net increase in emissions that would be generated by the Project. Because the new uses on the Project site would replace the existing uses, the emissions from the existing uses would not be included in the increase in emissions from the Project. CEQA evaluates an increase over baseline conditions. Thus, the air quality analysis appropriately identifies the increase of emissions that would be generated by the proposed Project. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.13:** In regard to the Draft Supplemental EIR not properly disclosing significant impacts related to air quality, this comment provides no substantial evidence of significant environmental effects associated with the Project's air quality emissions. As detailed in Responses O4.10 through O4.12, the Draft Supplemental EIR appropriately evaluates the increase in air quality emissions that would result from the Project and their potential impacts pursuant to SCAQMD methodology. Therefore, no new construction related air quality emissions impacts would occur that were not already disclosed in the Draft Supplemental EIR, and no new mitigation measures are required.

**Response O4.14:** Regarding the Project site being larger than the 5-acre localized significance thresholds (LSTs) for the localized construction air quality analysis, the LST analysis is not based on the size of the Project site. As detailed in the Air Quality Assessment included in Appendix B of the Draft Supplemental EIR (page 50), the SCAQMD *Final Localized Significance Threshold Methodology* is based on the area of daily ground disturbance. To provide a conservative estimate of potential LST emissions, the air quality analysis calculated construction emissions using the CalEEMod default construction equipment mixture for the entirety of the disturbance area for each phase and associated number of equipment hours based on 8-hours a day of usage and the maximum daily soil disturbance activity possible for each piece of equipment. It is highly conservative that all of the project equipment would be operating for an entire 8-hour day over the maximum acreage possible by the equipment. Those emissions were then presumed to occur over a 5-acre area, as opposed to the entire phase area, which concentrates the emissions within a small dispersion area and thus results in a conservative LST analysis at nearby receptors. Further, for operations, while the Project acreage is greater than 5 acres per day, LST impacts may still be conservatively evaluated using the LST look-up

tables for a 5-acre disturbance area. Use of the 5-acre disturbance area thresholds can be used to show that even if the daily emissions from all operational activity were emitted within a 5-acre area, and therefore concentrated over a smaller area which would result in greater site adjacent concentrations, the impacts would still be less than significant if the applicable 5-acre thresholds are utilized. Thus, the Draft Supplemental EIR provides a conservative estimate of maximum potential LST emissions, based on the area of daily disturbance, consistent with SCAQMD methodology. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.15:** Regarding the acreage disturbed during each phase of construction, as described in Response O4.14, the LST modeling was based on the number of equipment hours based on 8-hours a day of usage and the maximum daily soil disturbance activity possible for each piece of equipment. It is highly conservative that all of the project equipment would be operating for an entire 8-hour day over the maximum acreage possible by the equipment. Construction of each development that would be implemented pursuant to the proposed Specific Plan would be limited through the City's construction permitting process that is implemented for all developments throughout the City. In addition, Mitigation Measure AQ-1, Construction Exhaust and Dust Control, would reduce LST emissions by requiring the use of Tier 4 off-road construction equipment with Best Available Control Technology (BACT) documentation, and electrical hook ups to a power grid shall be provided for electric construction tools. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.16:** Refer to previous Response O4.15 regarding the conservative assumptions of the LST modeling approach. The approach of the LST analysis and distances to sensitive receptors is appropriate based on the scale of each phase and the fact that emissions from each block would be smaller in scale, due to the decrease in acreage disturbed and proximity to sensitive receptors, and distributed through each phase. It should be noted that the emissions modeled and reported in Draft Supplemental EIR Table 5.1-24 and Table 5.1-25 are for construction of the entirety of Phase 1. That means all emissions associated with construction of Phase 1 were used to determine the LST emissions at the nearest sensitive receptor. That method of analysis is extremely conservative because it assumes significantly more construction and emissions at the nearest sensitive receptor. The Supplemental EIR followed that conservative analysis to consider potential impacts of construction of subsequent phase on occupied uses. The reality is that Project emissions are a function of the acreage disturbed. Therefore, in a scenario where one building within a phase (e.g., Block 12, Phase 1) could be occupied during construction of buildings within the same phase (e.g., Blocks 11, 13, or 14, Phase 1) the emissions would be far lower because the construction emissions associated with the already constructed (and now occupied) buildings would be removed from the total emissions associated with construction of that phase. In other words, emissions from individual blocks would have the same level of emissions that were assumed for entire phase construction (such as the Phase 1 emissions shown in Draft Supplemental EIR Table 5.1-24 and Table 5.1-25). Emissions dissipate as the source moves further away from the receptor, which is why SCAQMD's LSTs increase at larger distances. Therefore, construction of other blocks would have less of an effect.

Exposure of potential on-site residents to construction particulate matter emissions would also be reduced due to mechanical ventilation and filtration building code requirements. California Code of Regulations (CCR) Title 24 Part 6 requires new development to use Minimum Efficiency Reporting Value (MERV) 13 air filtration on space conditioning systems and ventilation systems that provide outside air to the occupiable space of a dwelling. A MERV 13 filter has a particle removal efficiency in the range of 80 to 90 percent. According to the U.S. EPA's Exposure Factor Handbook (2011), on average, people spend 90 percent of their time indoors. As residents are not always indoors, the filtration's overall effectiveness accounts for the time spent outdoors, which equates to approximately three hours per day. Assuming an 80 percent removal efficiency and 90 percent time indoors, indoor particulate concentrations would be reduced by 72 percent (note that this is a conservative assumption as all of the time spent outdoors would not occur at the Project site). Therefore, for

future onsite residents, $PM_{10}$ and $PM_{2.5}$ emissions disclosed in the Draft Supplemental EIR LST analysis would be reduced even further.

Additionally, CEQA case law holds that impacts of the existing or future environment on future occupants of a project are not required to be evaluated under CEQA (*CBIA v. BAAQMD (2015) 62 Cal.4th 369, Case No. S213478). In California Building Industry Assn. v. Bay Area Air Quality Mgmt. Dist. (CBIA v. BAAQMD*) (2015) 62 Cal.4th 369, the California Supreme Court held that CEQA generally does not require public agencies to analyze the impacts that existing environmental conditions might have on a project's future users or residents. CEQA is limited to the impacts that arise from the project's effects on the environment.

Further, as described in Response O4.9, Section 3.0, *Project Description* of the Draft Supplemental EIR identifies the proposed Specific Plan construction phasing. Future projects pursuant to the Specific Plan would undergo Development Project Review by the City, to confirm that they are developed consistent with the assumptions set forth in the Supplemental EIR, including assumptions for phasing. The City's development review and permitting process would ensure that future construction adheres to the proposed Specific Plan. Further, any change to the Specific Plan that requires a discretionary approval by the City of Santa Ana would require preparation of a technical assessment evaluating potential project construction-related air quality impacts and inclusion of additional mitigation measures, beyond those already identified in the Draft Supplemental EIR. The comment does not provide substantial evidence of significant environmental effects that were not identified in the Draft Supplemental EIR.

**Response O4.17:** Refer to previous Response O4.15 and Response O4.16 regarding the conservative assumptions of the LST modeling approach and distances to sensitive receptors. Regarding the distance between Phase 2 sensitive receptors and Phase 3 construction, the commenter identifies the width of an internal street, but does not account for setbacks and other buffers/equipment or site constraints. Each block would be set back from the internal and external property lines. The locations of actual emissions sources would also set back as heavy equipment would not be able to access the areas closest to other structures. Smaller equipment producing lower emissions would be utilized for these tasks. Emissions would be dispersed throughout the entire site and not concentrated at the boundary. The Draft Supplemental EIR screening analysis uses reasonable estimates for the distances based on these factors.

As described above, smaller distances would not be representative of the actual Project construction operations. Nonetheless, in the interest of full disclosure, emissions are compared to 25-meter LST thresholds below. Note that the SCAQMD guidelines use the 25-meter thresholds for distances 25 meters away or less.

**Table 1. Construction Phase 25-Meter LST Analysis**

| **Construction Phase** | **LST Screening Maximum Daily Mitigated Emissions (lbs/day)[1]** | | | |
|---|---|---|---|---|
| | **$NO_X$** | **CO** | **$PM_{10}$** | **$PM_{2.5}$** |
| Phase 1 | 8.85 | 70.70 | 15.66 | 5.45 |
| *25-meter, 4-acre LST* | *160* | *1,074* | *11* | *6* |
| ***Exceeded?*** | ***No*** | ***No*** | ***Yes*** | ***No*** |
| Phase 2 | 13.82 | 56.62 | 10.42 | 5.45 |
| *25-meter, 3.5-acre LST* | *149* | *984* | *10* | *6* |
| ***Exceeded?*** | ***No*** | ***No*** | ***Yes*** | ***No*** |
| Phase 3 | 13.65 | 70.70 | 15.05 | 5.45 |
| *25-meter, 4-acre LST* | *160* | *1,074* | *11* | *6* |
| ***Exceeded?*** | ***No*** | ***No*** | ***Yes*** | ***No*** |
| [1]. The emissions reported for each phase are the construction stage with the highest emissions. | | | | |

In addition, although not a reasonable or realistic distance, in order to fully respond to the comment, dispersion modeling was conducted for construction $PM_{10}$ emissions using the U.S. EPA AERMOD model. As recommended by the SCAQMD, AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources. AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Surface and upper air meteorological data are provided by the SCAQMD. Surface and upper air meteorological data from the John Wayne Airport Monitoring Station was selected as being the most representative for meteorology based on proximity to the Project site. Construction emissions sources in AERMOD were represented with line volume sources and emissions rates in grams per second were converted from the Project's on-site mitigated LST pounds per day emissions in Draft Supplemental EIR Table 5.1-24, Table 5.1-26, and Table 5.1-28 (see Draft Supplemental EIR pages 5.1-33 through 5.1-35). As shown in the Table below, the concentrations generated from construction emissions would not exceed the SCAQMD's $PM_{10}$ concentration thresholds at the worst-case on-site receptors.

**Table 2. Construction Phase Dispersion Modeling LST Analysis**

| **Receptor Location** | **Emissions Source** | **Worst-Case Maximum On-Site Concentration (µg/m³)** | |
|---|---|---|---|
| | | **Annual** | **24-Hour** |
| Phase 1 | Phase 1, Phase 2, Phase 3, and Off-Site Improvements | 0.54 | 1.74 |
| Phase 2 | Phase 2 and Phase 3 | 0.79 | 1.82 |
| Phase 3 | Phase 3 | 0.57 | 1.35 |
| *SCAQMD Threshold*[1] | - | *1.0* | *10.4* |
| **Exceeded?** | **-** | **No** | **No** |

1. South Coast Air Quality Management District, *South Coast AQMD Air Quality Significance Thresholds*, March 2023, https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25

Accordingly, the NOx, CO, $PM_{10}$, and $PM_{2.5}$ emissions from the Project would not exceed the 25 meter LSTs. Additionally, as noted in Response O4.16, future on-site residences would be constructed with MERV 13 filters, as required by the CBC. Those filters would serve to further reduce construction emissions at on-site residences. To illustrate, per the LST Screening Maximum Daily emissions above, Phase 1 construction would generate emissions concentrations and sensitive receptors approximately 42 percent over the LST maximum. MERV 13 filters are very effective at reducing indoor particulate concentrations and receptor exposure. Conservatively, assuming an 80 percent removal efficiency and 90 percent time indoors, indoor particulate concentrations would be reduced by 72 percent, which would reduce concentrations below the maximums identified in the LST table above.

**Response O4.18:** This comment states that the Draft Supplemental EIR must be recirculated to address the LST issues detailed in previous comments and consider additional mitigation measures and alternatives.

Regarding recirculation of the Draft Supplemental EIR to address concerns regarding LSTs, as detailed in Responses O4.14 Through O4.17, the Draft Supplemental EIR appropriately evaluates construction LSTs from the Project and their potential impacts pursuant to SCAQMD methodology. As such, none of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.19:** In regard to the GPU FEIR mitigation measure requiring the City update its 2015 Climate Action Plan (CAP), the City's GPU FEIR does not require completion of the CAP update prior to approval of other projects within the City. The GPU FEIR mitigation measure related to updating the City's CAP is separate and mutually exclusive from the proposed Project. This is an important distinction because a CAP is required to include the following (see State CEQA Guidelines Section 15183.5):

- City-wide emissions inventories (i.e., all emissions sources within the City and not limited to a single project)
- City-wide reduction targets (i.e., not necessarily project thresholds/reduction targets)
- GHG reduction measures
- Quantification of the reductions from measure implementation, a monitoring mechanism
- Adoption in a public process following environmental review

Per the CEQA Guidelines, preparation of a CAP is a citywide endeavor. Therefore, a single project would not be able to implement PEIR Mitigation Measure GHG-1. The commenter incorrectly states that the Draft SEIR improperly removes the PEIR mitigation measure. The General Plan PEIR was published in 2021 and the City is implementing PEIR Mitigation Measure GHG-1 on a track separate from the proposed Project. Furthermore, none of the cases cited in the comment (*Sierra Club v. County of San Diego*, *Federation of Hillside & Canyon Associations v. City of Los Angeles*, *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors*) stand for the proposition that the Project is required to implement PEIR Mitigation Measure GHG-1, and therefore are inapplicable.

As detailed in Draft Supplemental EIR Section 5.5, *Greenhouse Gas Emissions*, the proposed Project would be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. The GPU FEIR determined that implementation of the GPU and its policies would result in a net decrease in emissions of approximately 255,878 MTCO2e over existing conditions within the City. The proposed Project would implement various mitigation measures (consistent with those that would be in an updated CAP) to reduce GHG emissions that includes Mitigation Measure GHG-1 requires installation of photovoltaic solar panels to offset energy emissions; Mitigation Measure GHG-2 requires the proposed Project meet or exceed CALGreen Tier 2 standards to further improve energy efficiency; Mitigation Measure GHG-3 requires the proposed Project to divert 75 percent of waste from landfills; Mitigation Measure GHG-4 requires landscape equipment on the project site to be 100 percent electric; and Mitigation Measure GHG-5 requires energy efficient appliances. and the Project proposes a specific plan that would be consistent with the buildout assumptions and applicable development standards of the GPU.

Also as described in the Draft Supplemental EIR, the Project would be consistent with the 2022 Scoping Plan Appendix D (Local Action) by implementing various project design and mitigation measures to achieve transportation electrification, VMT Reduction, and building decarbonization. The proposed Project would implement key residential and mixed-use Project attributes included in Appendix D as mitigation measures (Mitigation Measures GHG-1 through GHG-5), the proposed Project would be consistent with the actions and strategies set forth in Appendix D of the 2022 CARB Scoping Plan and would be consistent with the 2022 CARB Scoping Plan and the State's GHG reduction goals. Therefore, the Project would be required to implement numerous measures to ensure that it does not conflict with the State's goals to achieve carbon neutrality. Therefore, impacts related to generation of GHG emissions would be less than significant with mitigation incorporated, and no mitigation measures would be improperly removed.

**Response O4.20:** Regarding the Draft Supplemental EIR not utilizing the identified screening thresholds, Lead Agencies have discretion to formulate their own significance thresholds (See State CEQA Guidelines § 15064.7(b)). Lead Agencies can set thresholds on a project-by-project basis. CEQA does not require that a Lead Agency use the same significance threshold for different CEQA documents as long as the thresholds are supported by substantial evidence (*Citizens for Responsible Equitable Envt'l Dev. v City of Chula Vista* (2011) 197 CA4th 327). Further, a lead agency has the discretion to determine, based on the context of a particular project, whether to quantify the GHG emissions from a project or to rely on a qualitative analysis, or both (*Mission Bay Alliance v. Office of Community Investment and Infrastructure* (2016) 6 Cal.App.5th 160). As detailed in Draft Supplemental EIR Section 5.5, *Greenhouse Gas Emissions*, the proposed Project would be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279; and thus, would not provide a substantial increase in GHG emissions. The GPU FEIR determined that implementation of the GPU and its policies would result in a net decrease in emissions of approximately 255,878 MTCO2e over existing conditions within the City. The proposed Project is consistent with buildout assumptions in the General Plan, which were determined to result in a reduction in GHG emissions; and thus, would not provide a substantial increase in GHG emissions. The modeled reduction in GHG emissions from implementation of applicable regulatory plans, whether on the state or local level, provides the substantial evidence that the threshold of consistency with applicable regulatory plans and policies would reduce GHG emissions, and that substantial increases in GHG emissions would not occur.

Further, as discussed on page 5.5-2 of the Draft EIR, the Project would implement certain efficiency and conservation measures within its Project design, such as providing additional EV charging infrastructure, requiring energy efficient infrastructure, and requiring implementation of a TDM program, which would serve to contribute the Project's fair-share of GHG reductions required at the local and state level in order to meet local and state GHG-reduction goals. As such, it can be reasonably determined that the Project's GHG emissions would not be significant or cumulatively considerable as it helps to address the cumulative problem associated with reducing GHG emissions, as required by CEQA Guidelines Section 15064.4.

**Response O4.21:** In regard to the Project exceeding SCAQMD tier 3 and tier 4 standards, as described in Response O4.20, Lead Agencies have discretion to formulate their own significance thresholds per State CEQA Guidelines Section 15064.7(b) and Lead Agencies can set thresholds on a project-by-project basis. Projects are not required to utilize SCAQMD's screening thresholds, and different projects necessitate the use of different thresholds to appropriately evaluate the potential of projects to result in a substantial increase in GHG emissions. Further, under CEQA Guidelines Section 15064.4, lead agencies are not mandated to utilize numeric thresholds as a manner of determining significance (*Center for Biological Diversity v Department of Fish & Wildlife* (2015) 62 C4th 204). As detailed on page 5.5-11 of the Draft Supplemental EIR, CEQA Guidelines Section 15064.4 provides discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. The SCAQMD has identified thresholds that provide several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold. However, none of the options are required to be utilized by lead agencies. As detailed in Response O4.20, the Draft Supplemental EIR provides substantial evidence that consistency with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) would reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279, and that consistency with the GPU land use plan that was determined to result in a reduction in GHG emissions, along with the recommended mitigation measures would provide that impacts related to GHG emissions would be less than significant.

**Response O4.22:** In regard to the GHG threshold and recirculating the Draft Supplemental EIR, as described in Responses O4.20 and O4.21, Lead Agencies have discretion to formulate their own significance thresholds per State CEQA Guidelines § 15064.7(b) and Lead Agencies can set thresholds on a project-by-project

basis. The City of Santa Ana is not required to apply a service population screening threshold. As detailed previously, the proposed Project would be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. Therefore, the EIR analysis is consistent with evolving scientific knowledge and regulatory schemes governing GHG. None of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.23:** This comment states that CEQA requires analysis of VMT traffic impacts and provides various case law references related to cumulative impacts. The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any Project specific issue. Therefore, no further response is required or provided.

**Response O4.24:** Regarding the Project's VMT analysis, in addition to meeting the City's VMT screening thresholds as detailed in Section 5.13, *Transportation*, the VMT Screening Assessment (Appendix O of the Draft Supplemental EIR) details that the Project will screen out since it is within a TPA and the land use is consistent with the RTP/SCS as contained in the SCAG adopted Connect SoCal (2020–2045 RTP/SCS adopted September 3, 2020). The VMT Screening Assessment includes SCAG Data/Map Book land use designations and the Project's proximity to public transit. As demonstrated, the Project is consistent with the land uses in the RTP/SCS, which assumed the site would be constructed as an urban, mixed-use development that would reduce area VMT, consistent with the TPA designation.

Connect SoCal recognizes that development within Priority Growth Areas, including TPAs, supports mode shift and shortened trip distances. The Project site is within an identified Priority Growth Area, where urban development can contribute to reduced VMT and associated emissions. The Project proposes mixed-uses consistent with those permitted by the General Plan and would result in an urban character and consistent with the RTP/SCS. In addition, Section 5.13, *Transportation*, of the Draft Supplemental EIR describes that the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site; including new sidewalks, new and improved bike lanes, bus stop improvements, crosswalks, installation of secure bike parking, crosswalks, and development of an onsite greenlink for north-south pedestrian circulation and pedestrian paths along Callen's Common, providing east and west pedestrian connectivity. The Project site is located within a TPA and a high-quality transit corridor and is served by OCTA Routes 55, 57, 76, 86, 150, and 553, which would reduce the VMT of travel to and from the Project site. All of this information included in the Draft Supplemental EIR provides substantial evidence that the threshold is applicable for the project and that the Project would result in a less than significant impact related to VMT.

**Response O4.25:** Regarding the Project site being located in a higher VMT area than the Orange County Regional Average, implementing mixed-use higher density development lowers VMT as it provides a variety of uses within one location that is close to various transportation options. The proposed Project would provide urban mixed-uses within an identified Priority Growth Area, where urban development can contribute to reduced VMT. Particularly, the proposed Project would reduce VMT by its location adjacent to six OCTA Routes, sidewalks, and bicycle lanes. In addition, the Project would assist in the reduction of VMT by provisions of new sidewalks, bicycle lanes, and pedestrian facilities, as detailed in the previous response. The comment does not provide any evidence supporting a different conclusion.

**Response O4.26:** Regarding the Project's VMT analysis and use of a TPA exemption for the large scale of the Project, this comment does not provide substantial evidence that the Project would result in a significant VMT impact. Furthermore, as shown on Figure 5.13-3, SCAG identifies that the Project site is within a High Quality Transit Area. Consistent with general guidance from OPR, and CEQA Guidelines Section 15064.3(b)(1), a project that is located within a TPA or a High Quality Transit Area is presumed to have a less than significant impact to VMT. Additionally, the proposed Project is consistent with the land uses in the RTP/SCS, which assumed the site would be constructed as an urban, mixed-use development that would reduce area VMT, consistent with the TPA designation.

The 2020-2045 RTP/SCS recognizes that development within Priority Growth Areas, including TPAs, supports mode shifts and shortened trip distances. The Project site is within an identified Priority Growth Area pursuant to the 2020-2045 RTP/SCS based on its location within a SCAG High Quality Transit Area. The Project proposes land uses consistent with those permitted by the GPU, which is consistent with the land uses assumed for the Project site as part of the RTP/SCS. In addition, as shown in Table 5.8-1, the proposed Project would be consistent with the policies set forth in the RTP/SCS. Therefore, as the proposed Project is located within both a TPA and a High Quality Transit Area, and would be developed consistent with the SCAG RTP/SCS, the proposed Project would meet this screening threshold; and impacts would be less than significant.

In regard to the VMT information provided in the comment from the CalEEMod model runs, the GHG modeling worksheets calculate VMT by multiplying the number of vehicles with an average travel distance set by the air quality district (South Coast Air Quality Management District). The VMT output as a result of the GHG Analysis is only to obtain average GHG emission estimates and is not based on verified travel-demand VMT based on socio-economic data specific to the City.

**Response O4.27:** The City disagrees with the assertion that a more robust and objective RTP/SCS consistency analysis should be required. Page 3 of the *City of Santa Ana Traffic Impact Study Guidelines* (2019), states that this consistency can be a land use review (e.g., are the proposed land uses already included in the RTP/SCS) or can be reviewed from a VMT/SP perspective (e.g., does the resulting land use increase or decrease the VMT/SP in the Traffic Analysis Zone (TAZ) compared to the RTP/SCS assumptions). As described in Response O4.25, the Draft Supplemental EIR details the Project's land use consistency with the RTP/SCS, which assumed the site would be constructed as an urban, mixed-use development that would reduce area VMT, consistent with the TPA designation. In addition, Table 5.8-1 of Section 5.8, *Land Use and Planning,* provides a detailed comparison of each 2020 Connect SoCal Strategy Policy to the proposed Project. Therefore, based on the City's Traffic Impact Study Guidelines, impacts would be less than significant.

**Response O4.28:** In regard to the Draft Supplemental EIR failing to include a full VMT analysis, the commenter is referred to Responses O4.24 through O4.27. As the proposed Project is consistent with, and implements, the City's GPU for the Focus Area it is consistent with the City's ability to achieve the overall 2045 VMT goals. As detailed in Response O4.24, the Draft Supplemental EIR details the Project's land use consistency with the RTP/SCS, which assumed the site would be constructed as an urban, mixed-use development that would reduce area VMT, consistent with the TPA designation. In addition, the Project would implement various on- and offsite features to reduce VMT and the site is adjacent to existing high quality transit area. All of the multi-modal transportation details of the Project as included in Section 5.8, *Land Use and Planning* and Section 5.13, *Transportation* Sections of the Draft Supplemental EIR provide objective data demonstrating that the Project would implement the City's GPU including features that would reduce VMT, and that the Project's VMT falls within the GUP FEIR's VMT assumptions. Thus, the Draft Supplemental EIR includes a comprehensive analysis of the Project's VMT impacts and recirculation of the EIR is not required.

**Response O4.29:** The commenter asserts that Mitigation Measure AQ-3 (Vehicle Trip Reduction) does not impose a specific performance level and only requires information for residential uses. As set forth in CEQA Guidelines Section 15126.4, subd. (a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to include the specific details of mitigation

during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and identifies the types of actions that may achieve compliance with the performance standard. As described in Section 3.0 of the Draft Supplemental EIR, the proposed Project is a Specific Plan and at this time, no specific development project is being proposed. Therefore, it is not feasible to prepare specific transportation demand management plans at this time. However, as required for mitigation measures, Mitigation Measure AQ-3 sets forth specified performance standards to meet applicable emissions reductions and would be required to be implemented for all future developments within the Specific Plan area. Therefore, pursuant to CEQA Guidelines Section 15126.4, subd. (a)(1)(B), Mitigation Measure AQ-3 does not constitute mitigation deferral and accurately provides performance standards in line with guidance from the CAPCOA Quantifying Greenhouse Gas Mitigation Measures. Mitigation Measure AQ-3 requires all developments within the Specific Plan area to develop a qualifying Commute Trip Reduction (CTR)/TDM plan to reduce mobile GHG emissions for all uses and would be required to be approved by the City of Santa Ana prior to the issuance of building permits. The TDM plan would be specific for each onsite use and is required to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The mitigation measure includes TDM requirements for non-residential uses and residential rental units. It does not include TDM requirements for residential for-sale units because no for-sale units are included as part of the proposed Project. The comment does not state what additional TDM strategies should be considered.

**Response O4.30:** Regarding performance standards for solar panels and requiring battery storage, as described on page 5.3-11 of the Draft Supplemental EIR, through the City's development permitting process, the proposed Project would be required to comply with most current Title 24 Building Energy Efficiency Standards and Section 110.10 of the 2022 California Energy Code for solar panels. However, estimating or assuming solar panel efficiency at the time of future Specific Plan development is infeasible, as technology is continually evolving. The future efficiency of panels cannot be known. Likewise, because the project is a Specific Plan an no specific development is currently proposed, the "maximum roof area" of future development is not known/knowable. All future development would comply with then-applicable CBC and CEC standards relating to location, sizing, and construction of solar PV facilities. In addition, Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and would provide for high performance solar panels and installation of solar battery systems to provide storage of energy generated onsite. These existing regulations and requirements to meet CALGreen Tier 2 voluntary energy efficiency standards provide the performance standards that are required to be met and impacts would be less than significant with their implementation. Because the extent of future solar PV installation is not known/knowable, the need for an on-site battery storage system is also speculative. The Draft Supplemental EIR is not required to identify all possible measures that could be implemented and requiring the "most efficient solar panels feasible" as requested by the commenter is not warranted. Finally, as discussed above, the proposed Project is a Specific Plan and at this time, no specific development project is being proposed. Therefore, it is not feasible to calculate the maximum roof area available for solar at this time.

**Response O4.31:** Regarding mitigation for organic waste collection services, page 5.15-21 of the Draft Supplemental EIR describes that SB 1383 established regulations aimed to reduce organic waste disposal 75 percent and reduce least 20 percent of currently disposed surplus edible food by 2025. It is described that the intent of the law is to reduce methane, increase landfill usage, and provide additional food sources for Californians. Page 5.15-24 describes that the proposed Project would comply with all solid waste statute and regulations, as ensured through the City's development permitting process. As described in Response O4.3, new development involving food would be required to implement an edible food donation and recovery program that is required pursuant to SB 1383 that establishes targets to reduce food waste that would otherwise end up in the landfill, and to increase edible food recovery by 20%, by 2025. SB 1383 requires food generators to donate to food recovery organizations (such as food banks and/or food

pantries) the maximum amount of edible food they would otherwise throw away, and that this be implemented and tracked by the City. The Draft Supplemental EIR is not required to identify all possible measures that could be implemented. Further, the proposed Specific Plan Project is a programmatic plan that identifies the types of uses that would be within the site. Specific proposed developments or proposed uses would be required to implement specific organic/food waste programs that are applicable to each operation, which is part of the City's typical development review and permitting process.

**Response O4.32:** In regard to mitigation requiring a percentage of residential units to be affordable units, as detailed in Responses O4.3 and O4.6, affordable housing is an economic and social issue. CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). No environmental impacts related to affordable housing would occur from implementation of the proposed Project. As detailed in previous Response O4.20 through Response O4.28, impacts related to VMT would be less than significant and no mitigation measures are required. In addition, as detailed in Draft Supplemental EIR Section *5.5, Greenhouse Gas Emissions*, the proposed Project would result in a less than significant impact with implementation of the mitigation measures that were identified, and additional mitigation measures are not required.

**Response O4.33:** Regarding in-lieu fees for parks/recreational land, ss described in Section *5.12, Parks and Recreation*, the proposed Project would provide 13.1 acres of public open space, including a central park, two plaza spaces, a green link/paseo, and other open spaces such as landscaped parkways and programmable roads that could be used for public recreational areas. In addition, each of the buildings with residential units would include private recreation facilities for residents. Future developments pursuant to the Specific Plan would provide public and private open space amenities at a ratio of 200 SF per unit, such as open space rooftop areas, tot lots, pools and spas, courtyards, fitness areas, dog runs, etc. Private open space areas, such as balconies and patios, would be provided at a ratio of 50 SF per unit, which is included in the 200 SF per unit requirement. Based on the ratio of 200 SF of open space per dwelling unit, buildout of the Specific Plan would include approximately 17.21 acres of public and private open space. Of that, approximately 187,500 SF (4.3 acres) of private open space would be provided based on the ratio of 50 SF per unit. Therefore, approximately 41.8 percent of the 41.13-acre Project site would be dedicated to public and private opens space amenities to meet the proposed Project's demands. Thus, onsite private and public amenities are anticipated to meet most of the park and recreation needs of Project residents.

In addition, as described previously in Response O4.2, the proposed Project would be required to pay in-lieu fees that are required pursuant to the City's Municipal Code Sections 35-108, 35-110, and 35-111, which are based on the Mitigation Fee Act (Government Code Sections 66000, et seq) and are to be used for the acquisition, construction, and renovation of park and recreation facilities. Therefore, in-lieu fees for park/recreational land are required and are tied to a program to secure additional parkland.

**Response O4.34:** Regarding a TDM program for hotel operations, as described in Response O4.3 and Response O4.29, Mitigation Measure AQ-3 requires approval of a TDM plan prior to issuance of building permits. The proposed Specific Plan Project is a programmatic plan that identifies the types of uses that would be within the site. No specific hotel development is currently proposed and the details to provide an effective TDM plan are currently unknown. However, pursuant to Mitigation Measure AQ-3 a TDM plan would be specific for each onsite use and is required to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The implementation and effectiveness of the programs would be monitored by the City's Building and Safety Division as part of the building permitting inspection process and modified as required as part of occupancy permitting.

**Response O4.35:** Regarding a hotel-specific organic waste recycling program, as described in Response O4.3 and Response O4.31, new development involving food would be required to implement an edible food donation and recovery program that is required pursuant to SB 1383 that establishes targets to reduce

food waste that would otherwise end up in the landfill, and to increase edible food recovery by 20%, by 2025. SB 1383 requires food generators to donate to food recovery organizations (such as food banks and/or food pantries) the maximum amount of edible food they would otherwise throw away, and that this be implemented and tracked by the City. Each proposed development or proposed use involving food and food waste would be required to implement specific organic/food waste programs that are applicable to each operation, which may include some of the measures listed in the comment. These programs would be ensured as part of the City's typical development review and permitting process.

**Response O4.36:** Regarding the commenter's suggested mitigation requirements to reduce emissions and VMT, as described in Response O4.19, the City's GPU FEIR does not require completion of the CAP update prior to approval of other projects within the City. The GPU FEIR mitigation measure related to updating the City's CAP is separate and mutually exclusive from the proposed Project. As detailed in Draft Supplemental EIR Section 5.5, *Greenhouse Gas Emissions*, the proposed Project would be consistent with the State's long-term goal to achieve statewide carbon neutrality (zero net emissions) and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. The proposed Project would implement various mitigation measures (consistent with those that would be in an updated CAP), and impacts related to GHG emissions would be less than significant with mitigation incorporated, and no additional mitigation measures are required. In addition, as detailed in Responses O4.24 through O4.28, the Project would result in a less than significant impact related to VMT and no additional mitigation measures are required. However, many of the recommendations are consistent with Title 24 Building Energy Efficiency Standards and/or CALGreen Tier 2 voluntary energy efficiency standards that the proposed project would implement.

**Response O4.37:** Regarding the commenter's request for recirculation, as detailed in previous responses, the Draft Supplemental EIR follows prescribed criteria and thresholds and does not underestimate the Project's impacts, and no additional mitigation measures are required. None of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.38:** Regarding the commenter's assumption that hospitality workers will suffer the brunt of VMT impacts that have a direct link to air quality and climate change, as detailed in previous responses, including Responses O4.24 through O4.28, the Project would result in a less than significant impact related to VMT. Thus, no VMT impact would link to other impacts. It should also be noted that reduced VMT is assumed to correlate with decreases in air quality and GHG emissions. (2018 OPR Technical Advisory on Evaluating Transportation Impacts in CEQA.) As detailed in Section 5.1, *Air Quality*, of the Draft Supplemental EIR, and as shown on Table 5.1-33, with implementation of operational mitigation measures that prohibit fireplaces, require use of electrical landscape equipment, and use of low VOC paints, localized emissions would be less than thresholds and impacts of Project buildout would be less than significant with incorporation of mitigation. In addition, Response O4.19 details that impacts related to generation of GHG emissions would be less than significant with mitigation incorporated. Therefore, workers, including hospitality workers, would not be impacted by VMT, air quality, and climate change impacts on the Project site.

**Response O4.39:** Regarding the commenter's request for recirculation, as detailed in previous responses, the Draft Supplemental EIR follows prescribed criteria and thresholds and does not underestimate the Project's impacts, and no additional mitigation measures are required. None of the conditions arise which would require recirculation of the Draft Supplemental EIR pursuant to CEQA Guidelines Section 15088.5. No new significant environmental impact would result from the Project or from a new mitigation measure

proposed to be implemented, there is no substantial increase in the severity of an environmental impact, no feasible project alternative or mitigation measure considerably different from others previously analyzed would lessen the environmental impacts of the proposed Project, and the Draft Supplemental EIR is not fundamentally inadequate and conclusory in nature.

**Response O4.40:** This comment states that Local 11 reserves the right to supplement this appeal justification at future hearings and proceedings for this Project and that they be notified of future Project actions. The comment is conclusionary in nature and does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. Therefore, no further response is required or provided.

**LETTER I1: John Arnold, dated August 3, 2023 (1 page)**

**From:** John Arnold
**To:** Pezeshkpour, Ali
**Subject:** Fw: Related Bristol Development
**Date:** Thursday, August 3, 2023 7:18:20 PM

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----- Forwarded Message -----
**From:** John Arnold <arnoldjohndoris@sbcglobal.net>
**To:** alipezeshkpour@santa-ana.org <alipezeshkpour@santa-ana.org>
**Sent:** Thursday, August 3, 2023 at 07:10:58 PM PDT
**Subject:** Related Bristol Development

Dear Planning Manager,

I am a Santa Ana homeowner living about two blocks from the proposed development . While the proposed site probably needs more development it seems to me that the proposed plan will produce a huge increase in traffic congestion in what is already a very busy area. I1.1

I believe the number of apartments/residences should be considerably reduced. I1.2

I also wonder if popular businesses such as Baja Taco will be able to survive the development and if so could afford the rent in the new retail space. I1.3

Please consider considerably reducing the scope of the project. I1.4

Sincerely,

John Arnold
1911 W West Wind
Santa Ana , Ca 92704

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**Response to Comment Letter I1: John Arnold**

**Response I1.1:** The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. The number of vehicle trips that would result from each phase of the Project is provided in Table 5.13-3, *Proposed Project Trip Generation*, of the Draft Supplemental EIR. As shown on Figure 3-12, *Proposed Circulation Plan*, the Related Bristol Specific Plan identifies multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area.

The Draft Supplemental EIR Section 5.13 *Transportation*, details that Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR is not required to analyze impacts related to traffic congestion.

In addition, Policy M-1.4 from the City's Mobility Element (as listed on page 5.13-3 of the Draft Supplemental EIR) states that the City intends to "maintain at least a vehicle level of service "D" for intersections of arterial streets, except in areas planned for high intensity development or traffic safety projects". The Project site has a General Plan land use designation of District Center-High, which is intended for transit-oriented and high-density urban villages and mixed uses.

**Response I1.2:** The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. The proposed Project is a Specific Plan that delineates the maximum buildout of the Specific Plan area. Future residential development projects may not include the maximum allowable number of residential units and would be reviewed through the City's development review and permitting process. Further, it should be noted that the existing General Plan District Center High (DC-5) land use designation has an allowable density of 125 dwelling units per acre (du/ac), and the proposed development would result in a maximum density of 91 du/ac, which is 34 du/ac below the maximum allowed by DC-5.

**Response I1.3:** The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR or raise any other CEQA issue. CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's potential economic and social effects are not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of the Project's economic or social effects. Therefore, this comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan and no further response is warranted or provided.

**Response I1.4:** This comment requests consideration to reduce the scope of the Project. As discussed in Chapter 6, *Alternatives*, of the Supplemental EIR, after consideration of viable reduced Project alternatives, it was determined that a reasonable decrease in development within the Project site would consist of a reduction of 100,000 SF of commercial retail and elimination of the 250-room hotel. Therefore, the Draft

Supplemental EIR does consider a reduced scope of the Project. This comment will be forwarded to City decisionmakers as part of the Final EIR. The comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. This comment letter will be forwarded to all decision makers as part the Final EIR. No further response is warranted.

**LETTER I2: Vincent Salvati, dated August 4, 2023 (1 page)**

August 4, 2023

Mr. Ali Pezeshkpour, AICP
Planning Manager
City of Santa Ana Planning and Building Agency

Dear Sir

I have the following comments on the Draft Supplemental EIR and they concern the additional traffic that the Related Bristol project will have on the surrounding area.

The metric used for traffic in the Draft Supplemental EIR is vehicle miles travelled (VMT) which does not account for the potential of thousands of more vehicles on the surrounding streets especially during peak traffic periods.

As a resident of South Coast Shores I have observed that the current situation on the surrounding streets during peak periods is as follows: **I2.1**

- It is almost impossible to turn left on MacArthur exiting from South Coast Shores;
- Traffic on Bear towards MacArthur backs up past W Wakeham Place making it difficult for residents of Coast Shores to turn left and residents of St. Albans to turn right onto Bear;
- Traffic on Bristol heading towards the 405 often backs up at the intersection of Sunflower causing gridlock in the intersection.

I see nothing in the report that deals with mitigation on the additional number of vehicles that will be transiting the streets outside the immediate vicinity of the Related Bristol project.

I would like the plan to include potential solutions to the traffic issues outlined above.

Thank you for your consideration.

Vincent W Salvati
Resident South Coast Shores

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**Response to Comment Letter I2: Vincent Salvati**

**Response I2.1:** Regarding the concern about the increased traffic that would result from the Project, the number of vehicle trips that would result from each phase of the Project is provided in Table 5.13-3, *Proposed Project Trip Generation*, of the Draft Supplemental EIR. As shown on Figure 3-12, *Proposed Circulation Plan*, the Related Bristol Specific Plan identifies multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area. Draft Supplemental EIR Section 3.0, *Project Description*, details various roadway improvements that would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA.

The Draft Supplemental EIR Section 5.13 *Transportation*, details that Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of Vehicle Miles Traveled (VMT) criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. However, the Supplemental EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a TIA has been prepared for the Project and is publicly available on the Project's website.

In addition, Policy M-1.4 from the City's Mobility Element (as listed on page 5.13-3 of the Draft Supplemental EIR) states that the City intends to "maintain at least a vehicle level of service "D" for intersections of arterial streets, except in areas planned for high intensity development or traffic safety projects". The Project site has a General Plan land use designation of District Center-High, which is intended for transit-oriented and high density urban villages and mixed uses.

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**LETTER I3: Patricia Del George, dated August 10, 2023 (1 page)**

**From:** Pat
**To:** Pezeshkpour, Ali
**Subject:** Re: Related Bristol Project Comments
**Date:** Thursday, August 10, 2023 5:58:02 PM
**Attachments:** image001.png

Thanks for returning my call. I have a home in South Coast Shores and I am concerned about the added congestion that a development of the size of Related Bristol will bring. If it were to be downsized I think that it would be a great addition to the area. As I understand it there was a secondary option that would not have had as many residents. It is my opinion that it should be seriously considered I3.1
Thank You,
Patricia DelGeorge

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**Response to Comment Letter I3: Patricia Del George**

**Response I3.1:** The comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR.

As shown on Figure 3-12, *Proposed Circulation Plan*, of the Draft Supplemental EIR, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area. Draft Supplemental EIR Section 3.0, *Project Description*, details various roadway improvements that would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA.

The Draft Supplemental EIR Section 5.13 *Transportation*, details that Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of Vehicle Miles Traveled (VMT) criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. Further yet, the Supplemental EIR is not required to analyze impacts related to traffic congestion.

As discussed in Chapter 6, *Alternatives*, of the Supplemental EIR, after consideration of viable reduced Project alternatives, it was determined that a reasonable decrease in development within the Project site would consist of a reduction of 100,000 SF of commercial retail and elimination of the 250-room hotel. However, an alternative with fewer multi-family units was not considered in detail in the Draft Supplemental EIR as this alternative would not provide needed housing in line with the Project objectives. Therefore, the Draft Supplemental EIR does consider a reduced scope of the Project. This comment will be forwarded to City decisionmakers as part of the Final EIR. This comment letter with the request to reduce the size of the Project will be forwarded to all decision makers as part of the Final Supplemental EIR. No further response is warranted.

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**LETTER I4: David Mackler, dated August 17, 2023 (3 pages)**

August 17, 2023

Mr. Ali Pezeshkpour, AICP
Planning Manager
City of Santa Ana Planning and Building Agency
PO Box 1988 (M-20), Santa Ana, CA 92702
APezeshkpour@santa-ana.org

Ali,

I appreciated our recent meeting and our discussions over the past many months. In accordance with the information I have gained, enclosed are my personal thoughts, opinions, and requests RE the Related Bristol Project, although I must say I have heard from numerous neighbors who are generally in agreement. These points are generally those I have previously voiced. Please correct me if I am in error or I have missed something. **I4.1**

After my cursory review of well over 1,000 pages of (generally obtuse) documents, including but not limited to the Santa Ana City Plan of 2021 (and subsequent Update) and it's apparently "supportive" Environmental Impact Report, PEIR (AKA "City Plan/EIR") and various documents of the Related Bristol Specific Plan and it's "supportive" "DSEIR" (AKA "Related Bristol/EIR") of June 2023, I have some serious concerns and mixed feelings about the Related Bristol Project, some positive and most cautionary, especially in consideration of the proposed Segerstrom/Hines Project, following in the wake of Related Bristol. The additional demand surcharges of the population and density on the infrastructure and resources also created by the proposed Segerstrom/Hines Project dramatically underscore all the points noted herein. **I4.2**

I cannot find rational analysis nor scientific and metrics-based study of the existing conditions and capacities of the resources and infrastructure serving the site and the surrounding areas, nor the respective rational analyses of the projected demand of those elements related to the surcharges caused by the Related Bristol Development, especially with respect to the impact on Traffic and any systems considered by the City to be "unmitigable." This I consider insufficient justification and an alarming omission for project(s) that will likely change the quality of life for the surrounding residents. **I4.3**

For example, I see no utility study metrics regarding the capacities and abilities to address the demands of this dramatically increased population, yet So Cal Edison continues to warn us of increased brown outs due to global climate change, even without the added demand of Related Bristol et al. We recently came out of a severe water shortage, and the recent rains may have blinded us to the real likelihood of water shortages in the future. How will 8-12,000 additional people in this 2 block area contribute to that? Have the capacities and demands of the aquifers and existing power infrastructure been determined by rational studies? Where are those studies, and why haven't they been provide in laymen's terms to the public, with expert commentary? I do see mention of the upsizing of the water and wastewater infrastructure. I assume this was prepared by analysis and science based planning, correct? What about the other resources and infrastructure? **I4.4**

The Environmental Impact Report supporting the City Plan is seemingly deficient of such metrics and appears to have just "kicked the can" down the road, making it incumbent upon any subsequent proposed Specific Plan(s), including the Related Bristol Specific Plan, to further study and address substantive problems and issues. Likewise, the Related Bristol Specific Plan/EIR is also "kicking the can" and lacking in scope and some metrics-based analyses. It offers little or no acknowledgement of some of the serious problems it may cause to the surrounding area and does not properly assess the environmental impact of the areas outside of the proposed site, which is typically included in the purview of an Environmental Impact Report. This is a serious oversight. **I4.5**

August 7, 2023 Mr. Ali Pezeshkpour, AICP, Santa Ana Planning Manager RE: RELATED BRISTOL

We request that such scientific based analyses of the existing conditions and capacities of the utilities, resources and infrastructure as well as the respective abilities of those elements to address the new demand loads be prepared and provided to the public as an addendum to the Related Bristol EIR, and that the scope of the Related Bristol EIR be expended to include the impact to surrounding areas, and that a corresponding executive summary in laymen's terms be provided to the public prior to any further consideration of the project. Certainly the scope of the traffic study should be expanded to include the affected surface streets and system of all freeway access for the 405, 55 and 73 freeways. **I4.6**

The most obvious omission in both EIR's is the Traffic mess that will almost certainly be created in the areas, neighborhoods, streets, and freeways serving Related Bristol due to the dramatic increase in population, vehicles, and density. I consider the traffic analyses in both EIR's to be grossly insufficient and inaccurate with respect to impact on the surrounding areas (especially since the Related Bristol EIR has such a limited geographical scope). **I4.7**

It is my understanding (please correct me if I am in error) that one of the forces driving the drastically increased density and population allowed in the City Plan and Related Bristol Development is the State's mandate of the amount of additional housing units the cities must provide, City wide. Also, to make it easier for cities to achieve those numbers, the State has allowed their traffic studies to be based on the minimal and less intensive standard, referred to as the "**VMT**" methodology. Many consider the **VMT** method somewhat deceptive and incomplete, because it is based on the aggregate **City wide** Total **V**ehicle **M**iles **T**ravelled, rather than the previous tried and true methodologies of the traffic impact of development on the immediate and nearby areas, as determined by Traffic Engineering Science, including Trip Based Planning (analysis and impact of the number of vehicles entering and exiting the site)and Queuing Analysis (the capacity of the streets to accommodate that number of vehicles). While the "**VMT**" metric employed in the Bristol Related EIR may appear to be in accordance with the aggregate City wide Total **V**ehicle **M**iles **T**ravelled and perhaps allows the excuse that the traffic planning conforms to the minimum State requirement, **VMT** does not acknowledge nor address the drastic increase of traffic and **GRIDLOCK** that Related Bristol as proposed will create in the surrounding areas, because the streets directly serving Bristol Related cannot be widened. **I4.8**

The City seems to acknowledge that the traffic problem is "unmitigable," and the Related Bristol EIR appears to substantially sidestep this serious problem that the drastically increased vehicular traffic will create.

Taking directly from Related Bristol EIR Section 5.13 Transportation Impact TR-1: *"The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities...(The Impact is) Less than significant. (Mitigation Required): None required."* This is patently ridiculous**.** I moved here from West LA, which exists in a near constant state of **GRIDLOCK.** This project as proposed will render this entire area in **GRIDLOCK.** I live 1.5 blocks from the site and can often not exit onto MacArthur nor Bear without difficulty even now, especially in the AM and PM rushes. What will life be like if Related Bristol is approved as proposed? Even traffic lights will not increase the ability to enter streets that are saturated and cannot accept a surcharge. We can easily envision cars stalled at such intersections for multiple series of light changes without the ability to make a turn onto the streets, as is the case in LA.

**GRIDLOCK** not only creates inconvenience, but results in some economic loss to business in the entire area, and hampers the delivery of critical and emergency City services, such as utility repairs and causes significantly reduced response for Fire and Police Emergency Services. **I4.9**

2

August 7, 2023 Mr. Ali Pezeshkpour, AICP, Santa Ana Planning Manager RE: RELATED BRISTOL

We request additional and proper traffic analysis be prepared to include Trip Based Analysis and Queuing Engineering to determine the demand and actual capacity of the existing streets; that Fire and Police Departments review the project; that possible mitigation, if any be analyzed and proposed; that this information be prepared in laymen's terms and presented to the public for review, comment and input, and that the project be downsized accordingly based on those results. **I4.10**

It is the City's responsibility to ensure that the public be informed and educated regarding such dramatic changes to their City, their neighborhoods, and their way of life, and to establish and oversee the process of providing this information and education. The City Plan establishes the City wide goals and the parameters that are subsequently applied to specific projects and neighborhoods. However, it is not until a specific project is proposed in sufficient detail and adequately illustrated and explained in laymen's terms that the public can begin to understand its impact upon their lives. In this case I do not feel the public has been properly served by the process that was employed. The public deserves more. **I4.11**

The Related Bristol "Sunshine" meetings offered no forum for any shared information, and the overly obtuse and technical 2,000 pages of documents comprising the City Plan and the Related Bristol Specific Plan (and the respective EIR's) were generally lacking critical scientific analysis as noted herein, and in my opinion, remain essentially incomprehensible to the public. We request such information and studies be prepared as requested herein, and a clear, concise Executive Summary be prepared in laymen's terms and presented in a public forum with appropriate City Staff and technical expertise present to answer questions from the public, prior to moving forward with the City review process.

Being realistic, we understand the existing site is underused and quite valuable, and that there is obvious and substantial financial pressure to develop it to a higher level of use. Also, since the existing ownership of the properties will remain and the basis for development will be a land lease, the development costs, absent of land acquisition costs are perhaps less than would otherwise be incurred, and perhaps making it additionally attractive to developers. Hence, this site will almost certainly be developed soon, and it is only reasonable and prudent to support proper and well researched and planned development.

As an architect, I acknowledge that the planning and design as proposed **within the Related Bristol site** are quite exciting, generally well thought out, and apparently ecologically and green oriented. In anticipation of and based on the provisions and review of the information gained from the additional scientific and metrics based studies as requested above, I would support the Related Bristol Project as described in Alternative 2 in Section 1.7 of the City's DSEIR of July, 2023, as a starting point, and contingent upon: a realistic reduction in density, population and traffic, and with the addition of a community center and police substation. I understand the hotel offers an attractive TOT (Transit Tax) income to the City, paid for by out of town visitors, so perhaps we could consider a trade-off to include the hotel and further limit the density of the other elements. However, the approved project must be based on proper research and science based urban planning to ensure an acceptable quality of life for the existing neighbors, patrons and future residents. **I4.12**

Sincerely,

David Mackler, AIA, Santa Ana Resident

3

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**Response to Comment Letter I4: David Mackler**

**Response I4.1:** This comment is introductory in nature and does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. This comment will be forwarded to all decision makers as part of the Final EIR. No further response is warranted.

**Response I4.2:** This comment does not provide substantial evidence of a significant environmental impact or identify what impacts to infrastructure and resources are asserted to occur. The Draft Supplemental EIR Section 5.13, *Transportation*, details that the proposed Project would implement a variety of circulation infrastructure. Also, Section 5.7, *Hydrology and Water Quality* and Section 5.15, *Utilities and Service System*, describes the new infrastructure that would be implemented as part of the Project and that impacts to infrastructure would be less than significant with implementation of existing regulations. Regarding the demand on infrastructure and resources related to population and density increases associated combined with the Segerstrom/Hines project, each respective environmental topic section of the Draft Supplemental EIR includes an analysis of potential cumulative impacts associated with the Project. As discussed on page 5-5 of the Draft Supplemental EIR, the cumulative discussion in the Draft Supplemental EIR focused on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, and reasonably foreseeable future projects. It is standard City practice that only projects which have been formally submitted to City staff at the time the NOP is released are considered cumulative projects for the purposes of CEQA (*Gray v County of Madera* (2008) 167 CA4th 1099, 1127; *East Oakland Stadium Alliance v. City of Oakland* (2023) 89 Cal.App.5th 1226, 1272; *South of Market Community Action Network v. City and County of San Francisco* (2019) 33 Cal.App.5th 321, 337-338). At the time the Notice of Preparation and Draft Supplemental EIR were circulated for public review, an application had not been submitted for the Segerstrom project the commenter is referencing. Therefore, it is not considered a cumulative project within the Draft Supplemental EIR. However, buildout of the Specific Plan area (as part of the South Bristol Street Focus Area) was previously evaluated in the GPU EIR. As detailed throughout the Draft Supplemental EIR, specifically in Sections 3.0 *Project Description*, and 5.8 *Land Use and Planning,* the proposed Project is within the General Plan allowable density for the site. The existing General Plan District Center High (DC-5) land use designation has an allowable density of 125 dwelling units per acre (du/ac), and the proposed development would result in a maximum density of 91 du/ac, which is 34 du/ac below the maximum allowed by DC-5, which was evaluated previously by the City in the GPU FEIR. Therefore, additional demands from buildout of the site have also been cumulatively evaluated as part of buildout of the City.

**Response I4.3:** This comment does not provide substantial evidence of a significant environmental impact. In regard to traffic resulting from the Project, Figure 3-12, *Proposed Circulation Plan*, in the Draft Supplemental EIR, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area. Draft Supplemental EIR Section 3.0, *Project Description*, details various roadway improvements that would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA.

As detailed in Draft Supplemental EIR Section 5. 13 Transportation, Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743

directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of Vehicle Miles Traveled (VMT) criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. Further yet, the Supplemental EIR is not required to analyze impacts related to traffic congestion.

**Response I4.4:** This comment does not provide substantial evidence of a significant environmental impact. Regarding impacts to electrical infrastructure, the Project site would connect to existing electrical infrastructure in the surrounding rights-of-way and would not require extensions of electrical infrastructure where none currently exists. As detailed in Draft Supplemental EIR Section 5.3, *Energy*, Southern California Edison Company (SCE) has the capacity to continue providing service to the Project site at buildout of the Project. Also, as described on page 5.3-11 of the Draft Supplemental EIR, the proposed Project would be required to comply with most current Title 24 Building Energy Efficiency Standards and Section 110.10 of the 2022 California Energy Code for solar panels. Further, Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and would provide for high performance solar panels and installation of solar battery systems to provide storage of energy generated onsite. Regarding planned cumulative needs for electricity, the Project is consistent with the GPU designation for the site and would be within GPU buildout as forecasted by the GPU FEIR, as discussed on Draft Supplemental EIR page 5.15-10. Thus, impacts would be within the forecasted demand for Southern California Edison.

In regard to population and water demands resulting from the Project, as disclosed on page 5.10-8 of the Draft Supplemental EIR, buildout of the Project would result in approximately 9,238 new residents onsite. An analysis of potential water demand resulting from the Project was conducted as part of the Draft Supplemental EIR as a Water Supply Assessment (Appendix P to the Draft Supplemental EIR). As discussed on page 5.15-11 of the Draft Supplemental EIR, the Water Supply Assessment determined that the proposed Project would result in an increase of 802,359 gallons per day or 899 acre-feet per year. This volume of water supply was accounted for in the City's 2015 UWMP (as determined by the GPU FEIR). Additionally, as detailed in Table 5.15-5 of the Draft Supplemental EIR, the City has an additional supply of 5,500 to 6,500 AFY beyond that anticipated to be needed by the 2020 UWMP projections. Therefore, the City would have sufficient water supplies available to serve the Project and projected growth. In addition, as discussed on page 5.15-10 of the Draft Supplemental EIR, the proposed Project would install a new onsite water infrastructure system that would connect to water mains adjacent to the site. The onsite improvements include replacement of the existing 12-inch water main in Callen's Common between South Plaza Drive and Bristol Street with a new 12-inch water main and construction of a 12-inch water main in Bristol Paseo from MacArthur Boulevard to Sunflower Avenue with connections to other onsite private water infrastructure. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Ave with a 12-inch water main. Also, the existing 12- inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. All of these infrastructure improvements have been coordinated with the City's engineering divisions pursuant to demand studies of the maximum buildout of the site, pursuant to the proposed Specific Plan. Regarding wastewater infrastructure, Section 5.15, Utilities and Service Systems, details on page 5.15-5 that a Sewer Analysis Report (Draft Supplemental EIR Appendix Q) was prepared to determine whether the sewer system would be able to adequately handle the wastewater flows from the proposed Project in addition to existing flows. The analysis determined that the existing commercial development on the Project

site generates an average flow of 0.0534 cubic feet per second (cfs) with a peak flow of 0.160 cfs. The proposed Project would generate an average flow of 1.177 cfs with a peak flow of 3.530 cfs. Thus, the proposed Project would result in an increase of flows by an average daily flow of 1.1236 cfs and a peak flow of 3.370 cfs.

Based on results of the Sewer Analysis Report (Appendix Q), the proposed Project would install a new onsite sewer system that would connect to the existing 78-inch OCSD sewer main within the Sunflower Avenue right-of-way. The Sewer Analysis Report determined that the Sunflower Avenue OCSD sewer main has a maximum capacity of 96.8 cfs and has adequate capacity to accommodate the additional wastewater flows from the proposed Project. Also, each specific infrastructure improvement would be further verified through the City's development review and permitting process to ensure appropriate design capacities.

**Response I4.5:** This comment does not provide substantial evidence of a significant environmental impact. Regarding the commenter's conclusory assumption that the GPU FEIR is deficient, the time limit to challenge the GPU FEIR has expired and no challenges to the GPU FEIR have been filed. Therefore, the GPU FEIR is presumed valid pursuant to Public Resources Code Section 21167.2. Regarding the commenter's conclusory assumption that the Draft Supplemental EIR does not properly analyze impacts to surrounding areas from implementation of the proposed Project, the Draft Supplemental EIR included an analysis of direct potential impacts to surrounding sensitive receptors and residences where appropriate in Section 5.1, *Air Quality*, Section 5.6, *Hazards and Hazardous Materials*, and Section 5.9, *Noise*. Further, the Draft Supplemental EIR included an analysis of indirect potential impacts to surrounding areas in Section 5.7, *Hydrology and Water Quality*, Section 5.8, *Land Use and Planning*, Section 5.10, *Population and Housing*, Section 5.11, *Public Services*, Section 5.12, *Parks and Recreation*, Section 5.13, *Transportation*, and Section 5.15, *Utilities and Service Systems*. This commenter is referred to these sections of the Draft Supplemental EIR for an analysis of the Project's potential impacts to surrounding areas.

**Response I4.6:** This comment does not provide substantial evidence of a significant environmental impact. In regard to the capacity of existing infrastructure to service the Project, Section 5.15, *Utilities and Service Systems*, of the Draft Supplemental EIR includes an analysis of the existing and projected capacity of surrounding storm drains, water lines, and sewer lines and includes a discussion of necessary upgrades, where appropriate. As described in Section 5.15, *Utilities and Service Systems*, the proposed Project would install a new onsite water infrastructure system that would connect to water pipelines adjacent to the site. The onsite improvements include construction of a 12-inch water main in Bristol Paseo and replacement of the existing 12-inch water line in Callen's Common with a new 12-inch main and connection of the new onsite infrastructure to the replacement line. The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains. The water line improvements are consistent with conveyance needs for the area to improve aged existing infrastructure and does not expand water facilities in a manner that could accommodate additional unplanned growth.

In addition, the proposed Project would install a new onsite sewer system that would connect to the existing 78-inch Orange County Sanitation District (OCSD) sewer main in Sunflower Avenue, and no expansions to the offsite wastewater infrastructure would occur. The proposed Project would install a storm drain system within the onsite roadways to convey the stormwater to proposed vegetated biotreatment systems on the site and then to the existing or improved City storm drain systems in MacArthur Boulevard, South Plaza Drive, Sunflower Avenue, and Bristol Street. The proposed Project would result in a reduction in stormwater drainage. However, the Project includes improvements to replace the existing 54-inch reinforced concrete pipe (RCP) in Sunflower Avenue to a 72-inch RCP for 2,230 linear feet and replace the existing 42-inch RCP in South Plaza Drive to a 60-inch RCP for 320 linear feet. These improvements would replace existing storm

drain lines and would convey existing stormwater volumes and would not provide additional capacity to extend services or accommodate unplanned growth.

Regarding a traffic study for impacts to surface streets and freeways, SB 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a Traffic Impact Analysis was prepared for the Project and is publicly available on the City's Project website. In addition, as described previously in Response I4.3, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation, including roadway improvements, sidewalk improvements, bicycle lanes and bus stop improvements. Freeway ramps and other freeway facilities are owned and controlled by Caltrans; and the City does not have the authority to implement improvements.

**Response I4.7:** This comment does not provide substantial evidence of a significant environmental impact. Refer to Responses I4.3 and I4.6. Regarding the commenter's conclusory assumption that the GPU FEIR is deficient, the time limit to challenge the GPU FEIR has expired and no challenges to the GPU FEIR have been filed. Therefore, the GPU FEIR is presumed valid pursuant to Public Resources Code Section 21167.2.

The Project includes multiple circulation improvements that would implement efficient multi-modal circulation, including roadway improvements, sidewalk improvements, bicycle lanes and bus stop improvements. Freeway facilities are owned and controlled by Caltrans; and the City does not have the authority to implement improvements. Regarding the Draft Supplemental EIR traffic analysis, SB 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of VMT criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. Further yet, the Supplemental EIR is not required to analyze impacts related to traffic congestion.

**Response I4.8:** This comment does not provide substantial evidence of a significant environmental impact. As described previously in Response I4.3, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation, including roadway improvements, sidewalk improvements, bicycle lanes and bus stop improvements. Roadway improvements would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA. Further, as detailed in Response

I4.7, levels of service or other measures of traffic congestion are no longer considered significant impacts on the environment pursuant to SB 743. Therefore, the Supplemental EIR is not required to analyze impacts related to traffic congestion or gridlock. No further response is warranted.

**Response I4.9:** This comment does not provide substantial evidence of a significant environmental impact. Regarding gridlock resulting in economic loss, the commenter does not consider the transportation improvements that would be implemented as part of the Project. However, according to Section 15382 of the CEQA Guidelines, "[a]n economic or social change by itself shall not be considered a significant impact on the environment." As such, economic loss of businesses resulting from gridlock is not required to be analyzed in the Draft Supplemental EIR.

In regard to gridlock resulting in utility repairs, should future utility repairs be needed by the City, the City would be required to adhere to 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9). Construction activities for future utility improvements that may temporarily restrict vehicular traffic would be required to implement adequate measures to facilitate the safe passage of persons and vehicles through/around any required temporary road restrictions in accordance with Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9), which requires that prior to any activity that would encroach into a right-of-way, the area of encroachment be safeguarded through the installation of safety devices that would be specified by the City's Building and Safety Division during the construction permitting process to ensure that construction activities are not hampered by congestion.

In regard to gridlock resulting in increased response times for emergency responders, the Project would include provision of a new onsite Santa Ana Police Department substation, which would result in better police response times to the surrounding area. Also, the closest Fire Station (Station 76) is 0.5 mile, and only one major intersection (MacArthur and Bristol) from the Project site. The California Vehicle Code (Section 21806) states a motorist must yield the right-of-way to emergency vehicles. Specifically, motorists are required to pull to the right side of the highway and stop to allow an emergency vehicle to pass. If required, drivers of emergency vehicles are trained to utilize center turn lanes or travel in the opposing through lanes to pass through crowded intersections. Thus, the respect entitled to emergency vehicles and drivers' training allows emergency vehicles to negotiate typical street conditions in urban areas and areas near special events. As such, the Project would not have a significant impact on response times for emergency services. In addition, while automobile delay no longer can be considered a significant effect on the environment under SB 743, Table 3 below presents a summary of the LOS based on the Highway Capacity Manual (HCM) operations methodology, which reports LOS based on intersection delay (seconds per vehicle). Table 1 presents a summary of the Existing LOS and Existing Plus Project LOS at the four intersections surrounding the site located on MacArthur Boulevard, Bristol Street, Sunflower Avenue, and Plaza Drive. As shown in Table 1, the Project's net additional traffic would not affect the LOS at the four intersections under the Existing Plus Project conditions. Further, the average delay increase across all four intersections equates to an average increase of 2.9 seconds per vehicle. This increase in delay can be considered minimal and would have little effect on the overall flow of traffic during weekday AM peak hour and PM peak hour traffic conditions. Therefore, the Project would not result in a delay at surrounding intersections that would substantially interfere or inhibit emergency vehicle response times.

**Table 3. Surrounding Intersection LOS Conditions**

| Intersection | Peak Hour | Existing Traffic Conditions | | Existing Plus Project Traffic Conditions | |
|---|---|---|---|---|---|
| | | Delay (seconds/vehicle) | LOS | Delay (seconds/vehicle) | LOS |
| A. South Plaza Drive at MacArthur Boulevard | AM | 12.1 | B | 16.4 | B |
| | PM | 19.5 | B | 18.2 | B |
| B. Bristol Street at MacArthur Boulevard | AM | 39.5 | D | 43.6 | D |
| | PM | 42.5 | D | 43.2 | D |
| C. South Plaza Drive at Sunflower Avenue | AM | 8.5 | A | 10.8 | B |
| | PM | 17.1 | B | 17.9 | B |
| D. Bristol Street at Sunflower Avenue | AM | 36.5 | D | 39.9 | D |
| | PM | 68.0 | E | 76.6 | E |

**Response I4.10:** This comment does not provide substantial evidence of a significant environmental impact. In regard to traffic, the commenter is referred to Responses I4.7 through I4.9. The Draft Supplemental EIR has prepared the transportation analysis in compliance with the City's Traffic VMT Impact Study Guidelines. As discussed, levels of service or other measures of traffic congestion are no longer considered significant impacts on the environment. Therefore, the Supplemental EIR is not required to analyze impacts related to traffic congestion or capacity of roadways.

Regarding Fire Department and Police Department review of the Project, the Specific Plan was routed to Orange County Fire Authority and the Santa Ana Police Department for review. In addition, service letters were sent to Orange County Fire Authority and Santa Ana Police Department as part of preparation of the Draft Supplemental EIR in order to solicit feedback regarding potential impacts of the Project on emergency service operations. Neither Orange County Fire Authority nor the Santa Ana Police Department raised concerns regarding the potential for Project operations to result in impacts to response times to existing surrounding developments. As such, no mitigation is warranted as there is no nexus requiring such mitigation pursuant to CEQA Guidelines Section 15126.4, subd. (a)(4)(A)–(B).

**Response I4.11:** This comment does not provide substantial evidence of a significant environmental impact. In regard to the Draft Supplemental EIR being incomprehensible to the general public, the comment does not raise a specific issue with the adequacy of the Draft EIR as a disclosure document for environmental impacts. However, the Draft Supplemental EIR was prepared pursuant to CEQA Statute and the CEQA Guidelines in order to provide a meaningful discussion of the proposed Project and its resulting potential environmental impacts as a means of public disclosure. The Project is a Specific Plan, which will be implemented through subsequent projects consistent with the Specific Plan's development standards and regulations. The Draft Supplemental EIR analyzed the potential impacts associated with implementation of the Specific Plan, consistent with CEQA's requirements. However, it should be noted that future projects within the Specific Plan would also be reviewed for consistency with the analysis in this Supplemental EIR. The EIR process included distribution of a Notice of Preparation (NOP) to the community and a public comment period, holding a public scoping meeting where residents' concerns were heard, and distribution of a Notice of Completion and public review for the Draft Supplemental EIR. The City has a specific webpage with detailed information about the Project, and as mentioned in the comment, a community Sunshine meeting was held for the Project. Thus, public notification regarding the Project was appropriately provided. Further, the changes to the City are pursuant to the updated General Plan and the South Bristol Street Focus Area. Thus, the redevelopment of the site and change to the area is not newly considered and has been planned for by the City.

**Response I4.12:** This comment does not provide substantial evidence of a significant environmental impact. Regarding additional studies being provided, the commenter is referred to Responses I4.7 through I4.9 regarding the need to provide a traffic study as part of the Draft Supplemental EIR and is referred to Response I4.6 regarding the Draft Supplemental EIR's analysis of potential impacts to utility infrastructure. No additional studies are necessary or required. Regarding Alternative 2 and a reduced density alternative, the comment does not provide any specific concerns regarding the environmental impacts or analysis associated with Alternative 2 and merely provides their opinion that a reduced density alternative would be preferable. As such, no further response is warranted. This comment and responses will be forwarded to City decision makers as part of the Final EIR for their review and consideration.

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**LETTER I5: Sue Grasse, dated August 18, 2023 (1 page)**

**From:** sue grasse
**To:** Pezeshkpour, Ali
**Cc:** Christina Henrie Barker; Steve Churm
**Subject:** EIR Related Bristol project
**Date:** Friday, August 18, 2023 3:50:42 PM

August 18, 2023
Good afternoon.

The areas of concerns I did not see addressed were 24-hour security which was promoted at least one Sunshine meeting, fire department to be adequately prepared for fighting fires in high rise buildings, safety of children traversing major streets to attend public TK-12 grades, and transportation (shuttle) for those who cannot walk or ride bikes to the proposed Related project, and a pedestrian bridge across Sunflower to South Coast Plaza.

The concern for security emanated from neighbors concerned about the proposed underground parking. When queried about the 24-hour security, I was informed that a SAPD substation would be "invited" on the premises. This is not what I considered 24-hour security. **I5.1**

The question of firefighters prepared for high rise building fires is still a concern, as are the concerns for student safety going to and from school, inaccessibility for a less than mobile population, and a pedestrian bridge to accommodate the proposed pedestrian friendly Related project.

I did read section 5.1-5.15 to see if my questions were addressed.

Respectfully,

Susan Grasse
Thornton Park NA .

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**Response to Comment Letter I5: Sue Grasse**

**Response I5.1:** Regarding security concerns, it is described in Section 3.0, *Project Description*, of the Draft Supplemental EIR, that an administrative Police Department Substation (no transfers or bookings) would be located within the commercial use area of the Project site. The substation would provide space for the expansion of policing services in the southern portion of the City and would provide the ability to quickly respond to emergency calls from within the Project site. The specific location would be determined prior to construction of the first phase of the proposed Project. Also in Section 5.11, *Public Services*, it describes that the proposed Project would address typical residential security concerns by providing low-intensity security lighting, security cameras, electronic access to buildings, and onsite security personnel. Pursuant to the City's existing permitting process, the Police Department would review and approve the final site plans to ensure that the City's Crime Prevention through Environmental Design (CPTED) measures (General Plan Policy PS-2.1) are incorporated appropriately to provide a safe environment, including areas within parking garages. Thus, 24-hour security concerns were addressed in the Draft Supplemental EIR.

Regarding the ability of the Fire Department to respond to high rise building fires, the Draft Supplemental EIR describes on page 5.11-2 that the City has a specific Fire Facilities Fee in Municipal Code Chapter 8-46 that is levied against proposed buildings over two stories in height to provide for unique firefighting equipment and fire station configurations. The purpose of the fire facilities fee is to provide revenue to pay for equipment needed to fight fires in buildings over two stories in height and to improve fire stations in the city as necessary to accommodate such equipment and otherwise augment the City's capability to fight fires in such buildings. All fire facility fee revenues are required to be deposited in an account separate and apart from other city revenues and may be expended solely to pay for the cost of the facilities identified in Chapter 8-46 of the Municipal Code. In addition, page 5.11-6 the Draft Supplemental EIR describes that OCFA Fire Prevention Guideline B-09, Fire Master Plans for Commercial and Residential Development, includes regulations for adequate emergency access, such as access to and around structures would meet OCFA and California Fire Code requirements that include high rise provisions for buildings over 75 feet high that would be verified through the City's development review and permitting process. Thus, the ability to support fire services within high rise buildings was addressed in the Draft Supplemental EIR.

Regarding school children's safety, there are no schools adjacent to or in the close vicinity of the Project site. Thus, a large number of children would not be crossing streets to access school facilities near the Project site. As detailed in Section 3.0, *Project Description*, and Section 5.13, *Transportation*, of the Draft Supplemental EIR, the proposed Project provides street safety crossing features and pedestrian infrastructure to implement a pedestrian safe environment. The Project includes a Greenlink and paseos on the site that provide for non-vehicular pedestrian circulation throughout the site. In addition, the Project includes various offsite street improvements that would include pedestrian crossing facilities that would be required to meet the City's traffic engineering design standards as a part of the City's development review and permitting approval process to ensure the provision of adequate safety features. Thus, pedestrian safety features and improvements to the street system were discussed in the Draft Supplemental EIR.

The proposed Project does provide for Americans with Disability Act (ADA) transportation features, such as ADA parking facilities and shuttle pick up locations. Section 3.0, *Project Description*, describes that circulation improvements on the site would include drop-off and loading zones. At the time when a specific development is proposed, the inclusion, location, and design of ADA parking and shuttle facilities will be verified through the City's development review and permitting process. The Project does not include a pedestrian bridge. The comment related to a pedestrian bridge is a recommended Project feature and does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR.

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**LETTER I6: Gil Hess, dated August 20, 2023 (4 pages)**

**From:** Gil Hess
**To:** Pezeshkpour, Ali; Soto, Ricardo
**Cc:** "DAVID MACKLER"; Dave Miles; ywsalvati@hotmail.com; maurizio.bertoldi@gmail.com; Gilbert Hess W4P
**Subject:** Related Bristol Development - Submittal of Idea August 20, 2023
**Date:** Sunday, August 20, 2023 8:59:49 AM

Gentlemen –

Respectfully I would like to suggest an idea to enhance the image of Santa Ana in conjunction with the Related Bristol Development project.

Just as many other developers have done over the years when transforming an area for improvement, below is an example of what has been done and what our City Leaders could also do.

In any of the discussions with the City of Santa Ana or with the developer Related Development, has there been any conversation about creating a new district/Ward specifically for the project Related Bristol Development and neighboring communities/areas?

Please consider what one of our neighbors has done in this regard and how it has positively improved property values, visitor and tourism business and overall goodwill. **I6.1**

Reimagining the greater South Coast Metro area with a new city name and Zip Code would attract more residents, consumers and visitors. Perceptions would be enhanced, stereotypes would be dispelled and tax revenue would be increased.

Just as Newport Beach, under their city government, added Corona del Mar, Newport Coast, etc. as new Districts, they created new city names and zip codes over the years. Why wouldn't Santa Ana do the same with the greater South Coast Metro area? Santa Ana would be exhibiting fiscal responsibility, bringing increased diversity to its geographical areas and would most certainly enjoy increased property values and new businesses that would generate more tax revenue.

Here is a link to Newport Beach and all its Districts (Corona del Mar, Balboa, Newport Beach, etc.) http://nbgis.newportbeachca.gov/gispub/MapCatalog/pdf_maps/council_districts_11X17.pdf. These have changed over time since the inception of Newport Beach proper.

I6.1 cont.

Please seriously consider this idea to place our city head and shoulders above where we are today.

Thank you,

*Gil Hess*

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**From:** Bacerra, Phil pbacerra@santa-ana.org
**Sent:** Sunday, August 6, 2023 10:20 AM
**To:** dMack dmacktak@aol.com; Maurizio Bertoldi maurizio.bertoldi@gmail.com; Vincent Salvati vwsalvati@hotmail.com; Gil Hess gil@wealth4purpose.com; dmilesmail@gmail.com
**Subject:** Re: Related Bristol and Our Meeting Today

Unfortunately, I am not going to be able to meet on Sunday.

Are you available on Monday or Tuesday after 6pm?

**Phil Bacerra**
Councilmember - Ward 4
City of Santa Ana
20 Civic Center Plaza I Santa Ana, CA 92701

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**From:** dMack <dmacktak@aol.com>
**Sent:** Sunday, August 6, 2023 8:47:14 AM
**To:** Phil Bacerra <pbacerra@santa-ana.org>; Maurizio Bertoldi <maurizio.bertoldi@gmail.com>; Vincent Salvati <vwsalvati@hotmail.com>; Gil Hess <gil@wealth4purpose.com>; dmilesmail@gmail.com <dmilesmail@gmail.com>
**Subject:** Related Bristol and Our Meeting Today

Phil,

I am looking forward to our meeting.

I6.2

I want to ensure you've read my post on the SCS Facebook site prior to our meeting. Following is that text, just in case. **I6.2 cont.**

Thank you,
David Mackler, AIA

DEADLINE AUGUST 21! SCS RESIDENTS, THE RELATED BRISTOL DEVELOPMENT IS HEADING TOWARD OUR NEIGHBORHOOD, AND WE HAVE LIMITED TIME TO MAKE OUR THOUGHTS AND OPINIONS KNOWN! The City of Santa Ana will receive your letters and thoughts Re the proposed RELATED BRISTOL DEVELOPMENT on our doorstep (the Von's site on Bristol), until August 21, 2023. Please act ASAP! Email: APezeshkpour@santa-ana.org; or Mail to: Ali Pezeshkpour, AICP, Planning Manager, City of Santa Ana Planning and Building Agency, PO Box 1988 (M-20), Santa Ana, CA 92702. Additional details on this stage of the review and comment period are available in the Notice of Availability (NOA), which is a document that describes the City's process to the public. The NOA is available online at https://www.santa-ana.org/documents/related-california-bristol-specific-plan-notice-of-availability/. **I6.3**

I noticed some of our neighbors at the previous public meetings. I trust many have followed this development, perhaps researched it and have their own thoughts about it. THIS IS THE TIME TO MAKE YOUR OPINIONS KNOWN. I have some concerns and mixed feelings about this project, SOME CAUTIONARY, AND SOME ACTUALLY POSITIVE. These are my thoughts and opinions after attending public meetings, meeting with the developer's executives, as well as correspondence and meeting with the City Planner. I am acting only as a private citizen and not heading any group. Please address your thoughts and concerns directly to Ali Pezeshkpour, AICP the Santa Ana City Planner, and not to me. If there's sufficient interest, perhaps a meeting could be held at SCS, but time is running out.

The City of Santa Ana published a new City Plan in 2022 that allows our neighborhood to be considerably increased in population and density, traffic congestion, noise and greenhouse gas pollution and the use of our existing infrastructure, resources, and utilities, such as roads, transit system, water and power systems, sewerage, etc. **I6.4**

A developer, RELATED DEVELOPMENT has entered into agreements with the owners of the properties defined by MacArthur Blvd, Bristol St, Sunflower and Plaza Drive, i.e., the existing Vons site. This area is approximately 42 acres, approx. similar in size to South Coast Shores. The project is called RELATED BRISTOL and they are in process and pursuing development and subsequent construction permits with the City AS YOU READ THIS. I guess the approx. daytime population at SCS to be about 500 people (residents, guests, workers, etc.). RELATED BRISTOL as proposed may have as much as 20 times our SCS daily population.

I cannot find any rational research nor scientific justification in the 2022 City Plan nor the 2023 EIR (Environmental Impact Report, aka "DSEIR") which was directed by the **I6.5**

City and paid for by Related Development to substantiate this considerable increase in the density and use of our resources, NOR ANY SUBSTANTIAL ANALYSIS NOR SCIENTIFIC JUSTIFICATION OF THE IMPACT OF THIS PROJECT OUTSIDE THE BORDERS OF THE SITE ITSELF. **I6.5 cont.**

RELATED BRISTOL PLANS TO ADD 3,750 APARTMENT UNITS, 350,000 SQFT OF RETAIL, A 250 ROOM HOTEL AND A RESIDENT SENIOR CARE CENTER OF 200 UNITS. Assuming for the moment the retail component will generate the same population as the existing retail on the site, a guesstimate increase in the proposed daily population is AN ADDITIONAL 6-10,000 MORE PEOPLE! We can barely turn left on MacArthur now during the AM and PM rush, how will an additional 7,000+ people 1.5 blocks away affect that? It's my understanding that the City considers the traffic problem "unmitigatable," since they cannot widen any of the streets that serve the site and surrounding areas. **I6.6**

We are warned by our utility providers that brownouts and shortages are a constant and growing threat. How will this population surcharge affect our water supply? We moved here from West LA, where the streets were essentially in gridlock most of the day. Is this the future of our neighborhood? THESE ISSUES WARRANT FURTHER STUDY, SPECIFIC METRICS, REALISTIC MITIGATION MEASURES, AND MUST INCLUDE THE SURROUNDING AREAS AND NEIGHBORHOODS. **I6.7**

The existing site is underused and quite valuable, and there's substantial financial pressure to develop it. Hence, some development will almost certainly occur on the site in the near future. While I have no personal experience with Related Development, they seem to be very experienced and professional with a very good track record. As an architect, I acknowledge that their planning and design as proposed WITHIN THE SITE are generally well thought out and quite exciting WITHIN THE SITE. They paid for an EIR (Environmental Impact Report) that appears to give a favorable nod to the project, WITHIN THE SITE. However, I do not feel that the City nor anyone has provided substantial rational research nor specific metrics on the impact of the development to the AREA AROUND THE SITE. **I6.8**

It is for these reasons that I SUPPORT THE RELATED BRISTOL PROJECT, BUT URGE THAT IT BE RE-DESIGNED WITH LESS DENSITY AND REDUCED IMPACT ON THE SITE AND SURROUNDING AREA. The City also explored a possible option they refer to as "ALTERNATIVE 2" in the documents referenced above, which would consist of a reduction of 100,000 SF of commercial retail for a total of 250,000 SF of retail, restaurant commercial uses, and the elimination of the 250-room hotel. It would retain the 3,750 multi-family residential units, and 200-room senior housing facility. THIS WOULD BE A GREAT STARTING POINT FOR DISCUSSION. I ALSO URGE THAT THE ENVIRONMENTAL IMPACT AND MITIGATION MEASURES BE FURTHER STUDIED WITH RESPECT TO THE AREA SURROUNDING THE SITE.

I urge everyone to research this project as much as possible, and I urge you to make your thoughts and feelings known, ASAP, to the City, but not to me. The City of Santa Ana would like to hear them, and there is still time to have greater study undertaken to mitigate detrimental impact to the traffic and infrastructure of our neighborhood and the surrounding area. **I6.9**

**Response to Comment Letter I6: Gil Hess**

**Response I6.1:** The comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. Thus, no further response is required or provided; however, this comment will be forwarded to all decision makers as part the Final Supplemental EIR.

**Response I6.2:** This comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. No further response is required or provided.

**Response I6.3:** The comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. No further response is required or provided.

**Response I6.4:** This comment is related to the previous General Plan Update and general information about the proposed Project. Information related to the population of the Project at buildout is provided in Draft Supplemental EIR Section 5.10, *Population and Housing*. The comment does not provide any concerns or questions regarding the content or adequacy of the Draft Supplemental EIR. Thus, no further response is required or provided.

**Response I6.5:** Regarding the statement that the Project does not substantiate the increase in density and use of resources, as detailed throughout the Draft Supplemental EIR, specifically in Sections 3.0 *Project Description*, and 5.8 *Land Use and Planning,* the proposed Project is within the General Plan allowable density for the site. The existing General Plan District Center High (DC-5) land use designation has an allowable density of 125 dwelling units per acre (du/ac), and the proposed development would result in a maximum density of 91 du/ac, which is 34 du/ac below the maximum allowed by DC-5, which was evaluated previously by the City in the GPU FEIR.

Regarding the lack of substantial analysis for the areas surrounding the Project, the Draft Supplemental EIR included an analysis of direct potential impacts to surrounding sensitive receptors and residences where appropriate in Section 5.1, *Air Quality*, Section 5.6, *Hazards and Hazardous Materials*, and Section 5.9, *Noise*. Further, the Draft Supplemental EIR included an analysis of indirect potential impacts to surrounding areas in Section 5.7, *Hydrology and Water Quality*, Section 5.8, *Land Use and Planning*, Section 5.10, *Population and Housing*, Section 5.11, *Public Services*, Section 5.12, *Parks and Recreation*, Section 5.13, *Transportation*, and Section 5.15, *Utilities and Service Systems*. This commenter is referred to these sections of the Draft Supplemental EIR for an analysis of the Project's potential impacts to surrounding areas. In addition, each environmental topic area in the Draft Supplemental EIR includes a cumulative analysis focused on whether the impacts of the proposed Project are cumulatively considerable within the context of impacts caused by other past, present, and reasonably foreseeable future projects that are outside the borders of the site.

**Response I6.6:** Regarding traffic remediation, Figure 3-12, *Proposed Circulation Plan*, in the Draft Supplemental EIR, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area. Draft Supplemental EIR Section 3.0, *Project Description*, details various roadway improvements that would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and

a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA.

As detailed in Draft Supplemental EIR Section 5. 13 *Transportation*, Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of Vehicle Miles Traveled (VMT) criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. Further yet, the Supplemental EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a Traffic Impact Analysis was prepared for the Project and is publicly available on the City's Project website.

**Response I6.7:** This comment does not provide substantial evidence of a significant environmental impact. Regarding impacts to electrical infrastructure, the Project site would connect to existing electrical infrastructure in the surrounding rights-of-way and would not require extensions of electrical infrastructure where none currently exists. As detailed in Draft Supplemental EIR Section 5.3, *Energy*, Southern California Edison Company (SCE) has the capacity to continue providing service to the Project site at buildout of the Project. Also, as described on page 5.3-11 of the Draft Supplemental EIR, the proposed Project would be required to comply with most current Title 24 Building Energy Efficiency Standards and Section 110.10 of the 2022 California Energy Code for solar panels. Further, Mitigation Measure GHG-2 requires the proposed Project to meet CALGreen Tier 2 voluntary energy efficiency standards, which surpass the building code energy efficiency requirements, and would provide for high performance solar panels and installation of solar battery systems to provide storage of energy generated onsite. Regarding planned cumulative needs for electricity, the Project is consistent with the GPU designation for the site and would be within GPU buildout as forecasted by the GPU FEIR, as discussed on Draft Supplemental EIR page 5.15-10. Thus, impacts would be within the forecasted demand for Southern California Edison.

An analysis of potential water demand resulting from the Project was conducted as part of the Draft Supplemental EIR as a Water Supply Assessment (Appendix P to the Draft Supplemental EIR). As discussed on page 5.15-11 of the Draft Supplemental EIR, the Water Supply Assessment determined that the proposed Project would result in an increase of 802,359 gallons per day or 899 acre-feet per year. This volume of water supply was accounted for in the City's 2015 UWMP (as determined by the GPU FEIR). Additionally, as detailed in Table 5.15-5 of the Draft Supplemental EIR, the City has an additional supply of 5,500 to 6,500 AFY beyond that anticipated to be needed by the 2020 UWMP projections. Therefore, the City would have sufficient water supplies available to serve the Project and projected growth. Refer to previous Response I6.6 regarding traffic congestion studies and circulation improvements.

**Response I6.8:** Regarding Alternative 2 and a reduced density alternative, the comment does not provide any specific concerns regarding the environmental impacts or analysis associated with Alternative 2 and merely provides their opinion that a reduced density alternative would be preferable. The comment is related to the merits of the proposed Project and does not raise a specific issue with the adequacy of the Draft Supplemental EIR. Regarding the request for additional studies covering the surrounding areas, please refer back to Responses I6.5 and I6.7. This comment and responses will be forwarded to City decision makers as part of the Final EIR for their review and consideration.

**Response I6.9:** The comment provides no substantial evidence to support the assertations of traffic and infrastructure impact. The Draft Supplemental EIR Section 5.13 *Transportation*, details that the proposed

Project would result in less than significant transportation impacts, and that the Project would implement a variety of circulation improvements along the Project's frontage that are described previously in Response I6.6. The comment does not identify specific impacts related to infrastructure. Impacts related to infrastructure are described in Draft Supplemental EIR Section 5.13 *Transportation*, Section 5.7 *Hydrology and Water Quality*, and Section 5.15 *Utilities and Service System*, which determined that impacts to infrastructure would be less than significant with implementation of existing regulations.

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**LETTER I7: Louis Steers, dated August 20, 2023 (1 page)**

**From:** Louis Steers
**To:** Pezeshkpour, Ali
**Subject:** Comment Related Bristol Development
**Date:** Sunday, August 20, 2023 5:46:14 PM

Dear Ali Pezeshkpour, AICP, Planning Manager,

I am a Santa Ana resident at 3713 S Sea Cliff, a gated quiet community at Wakeham and Bear, in close proximity to the proposed development. I am very concerned that this project is able to move forward without any traffic remediation considered.

The corner of Bristol and McArthur is already a nightmare at least 70% of the day. My family and all family residents are very concerned about this development creating 3,750 apartments, 200 senior housing units, 350,000 square feet of offices, shops and restaurants, and a 250-room hotel.

It is very hard to even comprehend what the number of cars that support such a development will do to our community which is already full of aparments and homes and retail stores. To add offices, senior housing, and nearly 4 thousand apartments, and keep retail businesses is mind bogling. I definitely understand that the city of Santa Ana, as all state communities or mandated by the state to increase the number of mixed use developments which looks good on paper for mitigating the housing market shortage. Unfortunately the qualifty of life is not considered for all residents in the community. I7.1

I truly hope and pray that the planning commission and all city leaders take into consideration the quality of life impact of its citizens that currently reside in this area, ;aw abiding , tax paying citizens, when making their decision. Mptt to mention the value of homes will be impacted for not being a desirable area to reside after this and the other development next door are appoved.

Thank you for hearing our voice.

sincerely
Louis Steers

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**Response to Comment Letter I7: Louis Steers**

**Response I7.1:** The comment does not raise any specific environmental concern with the analysis within the Draft Supplemental EIR. Environmental topics related to the quality of life for City residents has been evaluated throughout the Supplemental EIR in sections that include: Section 5.1, *Air Quality*, Section 5.5 *Greenhouse Gas Emissions*, Section 5.6 *Hazards and Hazardous Materials*, Section 5.9 *Noise*, Section 5.10 *Population and Housing*, Section 5.11 *Public Services*, Section 5.13 *Transportation*, and Section 5.15 *Utilities and Service Systems*.

Regarding traffic remediation, Figure 3-12, *Proposed Circulation Plan*, in the Draft Supplemental EIR, the Project includes multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, including pedestrian circulation, bicycle lanes, bus stop improvements within the High Quality Transit Area. Draft Supplemental EIR Section 3.0, *Project Description*, details various roadway improvements that would be implemented as part of the Project to improve the existing roadways and provide for the increased vehicular volume from the Project site. In addition, each future proposed development under the currently proposed Specific Plan Project will be reviewed through the City's development review and permitting process for consistency with the approved Specific Plan and Supplemental EIR. This review would include VMT screening assessment and a focused traffic study to confirm consistency with the transportation findings made as a part of the Related Bristol Specific Plan Supplemental EIR, VMT screening assessment, and TIA.

The Draft Supplemental EIR Section 5.13 *Transportation*, details that Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR focuses on analysis of Vehicle Miles Traveled (VMT) criteria and improvements to the circulation system along the Project's frontage to accommodate buildout of the proposed Project, pursuant to the City's recent General Plan Update. Further yet, the Supplemental EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a Traffic Impact Analysis was prepared for the Project and is publicly available on the City's Project website.

Regarding home values, CEQA is an environmental protection statute that is concerned with physical changes to the environment (CEQA Guidelines Section 15358(b)). The environment includes land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15360). The Project's potential economic and social effects are not considered effects on the environment (CEQA Guidelines Sections 15064(e) and 15131(a)). Thus, consistent with CEQA, the Draft Supplemental EIR includes an analysis of the Project's potentially significant physical impacts on the environment and does not include substantial discussion of the Project's economic or social effects, including changes to home values.

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**LETTER I8: Klein Klein, dated August 18, 2023 (2 pages)**

**From:** Klein Klein
**To:** Pezeshkpour, Ali
**Subject:** Response to Related California Bristol Draft Supplemental EIR
**Date:** Monday, August 21, 2023 4:58:10 PM

A copy of this letter has been sent via mail to City of Santa Ana Planning and Building Agency:

Dear Planning Manager Ali Pezeshkpour AICP, Planning and Environmental Staff, and Planning Commissioners,

I am writing in response to the public review of the Related Bristol project's draft Environmental Impact Report (EIR). I appreciate the opportunity to provide feedback on this significant proposal, and I wish to express some concerns and observations regarding the project's analysis and inconsistent traffic study. **I8.1**

Firstly, I would like to draw your attention to the way the project addresses its impact on traffic. The project appears to downplay the impact on traffic by characterizing it as less than significant, understating the number of trips it generates, and offering minimal improvements to traffic infrastructure. The project understated its impact on traffic, particularly in relation to the Average Daily Trips (ADT) generated. **I8.2**

The project has categorized all proposed ADT as "shopping center" land use, even though "restaurants" are also part of the development. This categorization may not accurately represent the true ADT, as the project description on the Related Bristol website mentions various land uses, including "apartments, shops, restaurants, services, and cafes". In reality, the projected ADT could be higher than the 30,000+ trips presented in the report.

Furthermore, it seems that the project has discounted over 10,692 ADT. This discrepancy is compounded by the use of "internal capture rates" in the calculation, which assumes that visitors visit multiple businesses in the same development instead of generating multiple trips. In this case, the discount appears to double count the number of individuals applicable. It's important to note that internal capture rates are not applicable to ITE (Institute of Transportation Engineers) "shopping center" land use codes (820, 821, 822), as these codes inherently account for mixed-use characteristics. To ensure an accurate representation of ADT and capture rates, the applicant should consider including a separate category for the restaurant land use, rather than primarily categorizing the development as a shopping center. **I8.3**

Similar inaccuracies seem to arise when internal capture rates are applied to hotels with on-site restaurants or small retail. The ITE land use codes 310, 311, and 312 (hotel, all suites hotel, and business hotel) already incorporate the interaction of these land uses, rendering internal capture rates redundant.

The project's description on the Related Bristol website states, "Related Bristol is a visionary new development that will create a people first connection and bring together a vibrant mix of apartments, shops, restaurants, services, cafes, outdoor spaces and experiences, right across from South Coast Plaza. Our vision is to create a truly unique place that will act as a center point…". This indicates that the majority of the project does not fit the criteria for a local-serving land use. The project is not just a local-serving land-use, but rather a major retail, hospitality, and lifestyle attraction when considering the cumulative development near South **I8.4**

Coast Plaza. Additionally, there are concerns about the project's potential to generate significant greenhouse gas emissions (MTCO2), which were only determined to be trivial because the "The City of Santa Ana has not adopted a numeric threshold of significance for GHG emissions." Consequently, it is imperative that the project is not screened out from further Vehicle Miles Traveled (VMT) analysis using this criterion. **I8.5**

Moreover, it appears that the project discounts ADT redundantly through Non-Auto Trip Reduction and TDM Reduction, avoiding the threshold for projects generating less than 110 ADT. **I8.6**

Given these potentially significant impacts, it is essential that the project provides further clarification on trip distribution, reexamine VMT, and conducts a more detailed analysis. Particular attention should be given to the intersections at 405 and Bristol, 405 and Fairview, 73 and Bear, and, where significant impacts are anticipated, leading to unsatisfactory Levels of Service (LOS) and queuing thresholds where additional traffic, congestion, and queueing spills from these intersections onto the highway, causing delays and impacting local safety. The project should outline its plans for mitigating these adverse unsatisfactory impacts through necessary improvements and fair share contributions. **I8.7**

In conclusion, I appreciate the diligent work put forth by the project team and the Planning Staff thus far. My intention in raising these concerns is to ensure that the project is thoroughly reviewed and that any potential impacts on traffic and the environment are appropriately addressed in our neighborhood. I look forward to further discussions and updates on the Related Bristol project. **I8.8**

Thank you for your attention to these matters.

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**Response to Comment Letter I8: Klein Klein**

**Response I8.1:** The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR evaluation or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response I8.2:** As detailed in Section 5.13, *Transportation*, of the Draft Supplemental EIR, Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). The Secretary of the Natural Resources Agency subsequently certified CEQA Guideline 15064.3, establishing vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Upon certification of the new Guideline, automobile delay, as measured by "level of service" and other similar metrics, is no longer considered a significant impact on the environment under CEQA. (Public Resources Code 21099(b)(2).) The City of Santa Ana adopted new traffic impact criteria to be consistent with the Governor's Office of Planning and Research (OPR) recommendations. These new guidelines are contained within the *City of Santa Ana Traffic Impact Study Guidelines (dated September 2019)* and provide screening criteria and methodology for VMT analysis, which are generally consistent with OPR guidelines. The VMT analysis for this Project is detailed in the *Vehicle Miles Traveled (VMT) Screening Assessment for the Proposed Related Bristol Project* (Appendix O of the Draft Supplemental EIR).

As included in the *City of Santa Ana Traffic Impact Study Guidelines (dated September 2019)* and based on the City's VMT screening criteria and guidance from OPR, the proposed Project is located within a Transit Priority Area (TPA) and the land use is consistent with the RTP/SCS as contained in Southern California Association of Governments' (SCAG) adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy). Therefore, in accordance with the City of Santa Ana's guidelines, the proposed Project would have a less than significant CEQA-related transportation impact related to VMT.

Relative to the Project's trip generation forecast, since the exact commercial tenant mix is unknown/still evolving the most appropriate trip rates to use are ITE Land Use 820: Shopping Center (>150k). The description for ITE Land Use 820 states the following: "*A shopping center of this size typically contains more than retail merchandising facilities. Office space, a movie theater, restaurants, a post office, banks, a health club, and recreational facilities are common tenants.*" As such, the use of ITE Land Use 820: Shopping Center rates is appropriate for determining the trip generation potential of the proposed Project, since the Related Bristol Project directly fits the description for ITE 820: Shopping Center (>150k), and the ITE trip generation rates are based on numerous empirical studies of existing shopping centers. Therefore, the trip rates and thus the Project's trip generation forecast are considered appropriate, and no modifications are required or recommended.

**Response I8.3:** When developing trip generation for a site, a common engineering practice for mixed-use development projects is to account for typical reductions related to internal capture and pass-by trips. The proposed Project would provide for a reduction of vehicle trips by the combination of onsite residential, retail, commercial, office, and recreational facilities that would reduce the need to travel outside of the Project area. Further, the site is within a TPA and a high-quality transit corridor adjacent to 6 bus routes, sidewalks, and bicycle routes that would reduce vehicle trips. For a project of this size, it is also common for the project to include travel demand measures (TDM) which would also reduce the number of trips.

As it relates to application of pass-by and internal capture reductions, the approach and methodology is consistent with what is documented in the *Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021)* and the *Trip Generation Handbook, 3rd Edition, published by ITE (September 2017)*. The internal capture adjustments applied to the Project account for internal interaction between the hotel, residential, and shopping center components of the Project; no internal capture adjustments were applied independently to the Project's shopping center component, and given the shopping center trip rates include restaurant land uses, there is not a need to separate internal capture rates for potential food uses. Relative to the Project's hotel component, the internal capture adjustment was appropriately applied to represent the interaction with the Project's shopping center component; no internal capture adjustment was applied to potential hotel supporting facilities that may include retail, restaurant, meeting and/or banquet facilities. The pass-by adjustment was applied to only the Project's shopping center component.

For the TDM reductions, the City of Santa Ana has adopted an ordinance for larger employers that they are required to implement programs to assist in reducing traffic demands. The Project would incorporate programs and policies to reduce vehicular miles traveled through transportation demand management policies consistent with applicable strategies contained with Section 36-606 – TDM strategy plan of the Santa Ana Municipal Code. These TDM measures could consist of the following and would be tailored to meet the needs of the proposed uses of the Project:

- Pedestrian Circulation Enhancements
- Bicycle Circulation Enhancements
- Transit Oriented Development and Transit Connection Enhancements
- Carpooling Programs
- Unbundled Residential Parking Cost

As a result of these potential TDM measures being applied a 5% reduction is considered conservative. It is likely the Project trips would have greater reductions than what was assumed. The Federal Highway Administration (FHWA) identifies that TDM measures when implemented in a mixed-use setting could generate trip reductions ranging between 8% and 27%. As an example, if alternative commute services TDM measures (i.e., shuttle bus, vanpool, etc.) were to be implemented, a reduction ranging between 5% to 10% could be assumed. As such, the 5% reduction applied to the Traffic Study is conservative.

Additionally, a 5% non-auto trip reduction was applied to the proposed Project to account for other modes of transportation (i.e., public transit, ride share, walking, biking, etc.) and the "synergy" between the proposed Project and surrounding retail and commercial land uses.

As such, the Project would be required to implement such programs which would reduce trips. The trip reductions noted in the trip generation table are rather modest. Therefore, the trip reduction for pass-by, internal capture and TDM are considered appropriate, and no modifications are required or recommended.

**Response to I8.4:** In regard to the Project not being a local-service project, Section 5.13, *Transportation,* of the Draft Supplemental EIR describes that the Project does not meet the threshold for a local-serving project.

**Response to I8.5:** As discussed in Section *5.5 Greenhouse Gas Emissions*, impacts related to greenhouse gas emissions were found to be less than significant as the Project would be consistent with applicable regulatory plans and policies to reduce greenhouse gas (GHG) emissions, such as the CARB Scoping Plan and the City of Santa Ana Climate Action Plan (CAP).

CEQA Guidelines Section 15064.4(a)(2) states that "A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Quantify greenhouse gas emissions resulting from a project; and/or (2) Rely on a qualitative analysis or performance-based standards." In the case of the

proposed Project, the lead agency has decided to utilize a qualitative analysis based on consistency with applicable plans and policies to reduce GHG emissions to determine the significance of GHG impacts. Additionally, CEQA Guidelines Section 15183.5 states, "Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document." The CARB Scoping plan includes policies and measures to reduce GHG emissions and ensure projects do not interfere with the state's implementation of AB 1279's target of 85 percent below 1990 levels and carbon neutrality by 2045. The City of Santa Ana CAP is put in place to ensure that the City is tracking and monitoring GHG emissions in order to meet the 2050 GHG reduction goal. Therefore, consistency with the CAP would ensure consistency with State and local policies, plans, and regulation aimed at reducing GHG emissions. As discussed in Tables 5.5-5 and 5.5-6 of the Draft Suplemental EIR, the proposed Project would be consistent with both the CARB Scoping Plan and the City of Santa Ana CAP with the inclusion of the proposed mitigation measures. Under CEQA Guidelines, this is a sufficient analysis of GHG impacts.

As discussed in Section 5.13 *Transportation,* the City of Santa Ana Traffic Impact Study Guidelines contain screening thresholds to determine whether a project would require further VMT analysis. The Project site is located within a Transit Priority Area (TPA) and a High-Quality Transit Area as identified by the City of Santa Ana Traffic Impact Study Guidelines and Figure 5.13-3 of the Draft Supplemental EIR. Additionally, the Project is not located on a site identified in Appendix C of the Santa Ana Traffic Impact Study, which identifies areas that cannot be screened out by being located in a TPA. Therefore, the proposed Project would result in less than significant impacts related to VMT, and no further analysis is required.

**Response I8.6:** The VMT study states the opposite, which is that the Project generates more than 110 net daily trips and thus would not screen out from a VMT Analysis when applying this screening criteria. Nevertheless, as stated in Response 18.2, the proposed Project would have a less than significant CEQA-related transportation impact related to VMT.

**Response I8.7:** Regarding trip distribution, the commenter did not provide any requests for clarification of the Project's trip distribution. Concerns regarding the method and detail of the potential transportation impact analysis are addressed above in Responses 18.2 and I8.5. Concerns related to the Project's trip generation are answered in Responses I8.2, I8.3, and I8.6. However, it should be noted that an analysis of the potential impact associated with the distribution of Project trips is not required per the State CEQA Guidelines. Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a Traffic Impact Analysis was prepared for the Project and is publicly available on the City's Project website.

In addition, Policy M-1.4 from the City's Mobility Element states that the City intends to "maintain at least a vehicle level of service "D" for intersections of arterial streets, except in areas planned for high intensity development or traffic safety projects". The Project site has a General Plan land use designation of District Center-High, which is intended for transit-oriented and high-density urban villages and mixed uses.

The commenter provides no substantial evidence regarding a traffic safety impact. Regarding traffic safety, a queueing analysis was conducted for the Project site as part of a supplemental traffic analysis (as provided in Appendix A to this Final Supplemental EIR), which determined that the Project would result in adequate storage capacity for the Caltrans on- and off-ramps. At ramps in which the queueing exceeds the storage

provided, spillover queues can be accommodated upstream of the turn pockets. Summaries of the results are provided in Tables 8, 9, 10, 11, 12, 13 and 14 of the supplemental traffic analysis (as provided in Appendix A to this Final Supplemental EIR), which shows that none of the analysis scenarios would result in the potential for spill beyond the designated storage lane with the exception of the Year 2045 scenario for the Bear Street at the SR-73 northbound ramp. However, this potential spill beyond the designated storage lanes would also occur without the addition of the Project in year 2045. As such, the Project would not cause a potential safety concern at Caltrans intersections.

**Response I8.8:** This comment serves as a conclusion to the letter and does not provide any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. This comment letter will be forwarded to all decision makers as part the Final Supplemental EIR. No further response is warranted.

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**LETTER I9: Anonymous, dated August 24, 2023 (2 pages)**

Ali Pezeshkpour, AICP, Planning Manager
City of Santa Ana Planning and Building Agency
PO BOX 1988 (M-20)
Santa Ana, CA 92702

Subject: Response to Related California Bristol Draft Supplemental EIR

Dear Santa Ana Planning Commission, Planning, and Environmental Staff,

I am writing in response to the public review of the Related Bristol project's draft Environmental Impact Report (EIR). I appreciate the opportunity to provide feedback on this significant proposal, and I wish to express some concerns and observations regarding the project's analysis and inconsistent traffic study. **I9.1**

Firstly, I would like to draw your attention to the way the project addresses its impact on traffic. The project appears to downplay the impact on traffic by characterizing it as less than significant, understating the number of trips it generates, and offering minimal improvements to traffic infrastructure. The project understated its impact on traffic, particularly in relation to the Average Daily Trips (ADT) generated. **I9.2**

The project has categorized all proposed ADT as "shopping center" land use, even though "restaurants" are also part of the development. This categorization may not accurately represent the true ADT, as the project description on the Related Bristol website mentions various land uses, including "apartments, shops, restaurants, services, and cafes". In reality, the projected ADT could be higher than the 30,000+ trips presented in the report.

Furthermore, it seems that the project has discounted over 10,692 ADT. This discrepancy is compounded by the use of "internal capture rates" in the calculation, which assumes that visitors visit multiple businesses in the same development instead of generating multiple trips. In this case, the discount appears to double count the number of individuals applicable. It's important to note that internal capture rates are not applicable to ITE (Institute of Transportation Engineers) "shopping center" land use codes (820, 821, 822), as these codes inherently account for mixed-use characteristics. To ensure an accurate representation of ADT and capture rates, the applicant should consider including a separate category for the restaurant land use, rather than primarily categorizing the development as a shopping center. **I9.3**

Similar inaccuracies seem to arise when internal capture rates are applied to hotels with on-site restaurants or small retail. The ITE land use codes 310, 311, and 312 (hotel, all suites hotel, and business

hotel) already incorporate the interaction of these land uses, rendering internal capture rates redundant. **I9.3 Cont.**

The project's description on the Related Bristol website states, "Related Bristol is a visionary new development that will create a people first connection and bring together a vibrant mix of apartments, shops, restaurants, services, cafes, outdoor spaces and experiences, right across from South Coast Plaza. Our vision is to create a truly unique place that will act as a center point...". This indicates that the majority of the project does not fit the criteria for a local-serving land use. The project is not just a local-serving land-use, but rather a major retail, hospitality, and lifestyle attraction when considering the cumulative development near South Coast Plaza. Additionally, there are concerns about the project's potential to generate significant greenhouse gas emissions (MTCO2), which were only determined to be trivial because the "The City of Santa Ana has not adopted a numeric threshold of significance for GHG emissions." Consequently, it is imperative that the project is not screened out from further Vehicle Miles Traveled (VMT) analysis using this criterion. **I9.4** **I9.5**

Moreover, it appears that the project discounts ADT redundantly through Non-Auto Trip Reduction and TDM Reduction, avoiding the threshold for projects generating less than 110 ADT. **I9.6**

Given these potentially significant impacts, it is essential that the project provides further clarification on trip distribution, reexamine VMT, and conducts a more detailed analysis. Particular attention should be given to the intersections at 405 and Fairview, 405 and Bristol, 405 and Bear, and, where significant impacts are anticipated, leading to unsatisfactory Levels of Service (LOS) and queuing thresholds. The project should outline its plans for mitigating these adverse unsatisfactory impacts through necessary improvements and fair share contributions. **I9.7**

In conclusion, I appreciate the diligent work put forth by the project team and the Planning Commission thus far. My intention in raising these concerns is to ensure that the project is thoroughly reviewed and that any potential impacts on traffic and the environment are appropriately addressed in our neighborhood. I look forward to further discussions and updates on the Related Bristol project. **I9.8**

Thank you for your attention to these matters.

Sincerely,

Residents of Santa Ana

**Response to Comment Letter I9: Anonymous**

**Response I9.1:** The comment does not raise a specific issue with the adequacy of the Draft Supplemental EIR evaluation or raise any other CEQA issue. Therefore, no further response is required or provided.

**Response I9.2:** As detailed in Section 5.13, *Transportation*, of the Draft Supplemental EIR, Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). The Secretary of the Natural Resources Agency subsequently certified CEQA Guideline 15064.3, establishing vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Upon certification of the new Guideline, automobile delay, as measured by "level of service" and other similar metrics, is no longer considered a significant impact on the environment under CEQA. (Public Resources Code 21099(b)(2).) The City of Santa Ana adopted new traffic impact criteria to be consistent with the Governor's Office of Planning and Research (OPR) recommendations. These new guidelines are contained within the *City of Santa Ana Traffic Impact Study Guidelines (dated September 2019)* and provide screening criteria and methodology for VMT analysis, which are generally consistent with OPR guidelines. The VMT analysis for this Project is detailed in the *Vehicle Miles Traveled (VMT) Screening Assessment for the Proposed Related Bristol Project* (Appendix O of the Draft Supplemental EIR).

As included in the *City of Santa Ana Traffic Impact Study Guidelines (dated September 2019)* and based on the City's VMT screening criteria and guidance from OPR, the proposed Project is located within a Transit Priority Area (TPA) and the land use is consistent with the RTP/SCS as contained in Southern California Association of Governments' (SCAG) adopted Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy). Therefore, in accordance with the City of Santa Ana's guidelines, the proposed Project would have a less than significant CEQA-related transportation impact related to VMT.

Relative to the Project's trip generation forecast, since the exact commercial tenant mix is unknown/still evolving the most appropriate trip rates to use are ITE Land Used 820: Shopping Center (>150k). The description for ITE Land Use 820 states the following: "*A shopping center of this size typically contains more than retail merchandising facilities. Office space, a movie theater, restaurants, a post office, banks, a health club, and recreational facilities are common tenants.*" As such, the use of ITE Land Use 820: Shopping Center rates is appropriate for determining the trip generation potential of the proposed Project, since the Related Bristol Project directly fits the description for ITE 820: Shopping Center (>150k), and the ITE trip generation rates are based on numerous empirical studies of existing shopping centers. Therefore, the trip rates and thus the Project's trip generation forecast are considered appropriate, and no modifications are required or recommended.

**Response I9.3:** When developing trip generation for a site, a common engineering practice for mixed-use development projects is to account for typical reductions related to internal capture and pass-by trips. The proposed Project would provide for a reduction of vehicle trips by the combination of onsite residential, retail, commercial, office, and recreational facilities that would reduce the need to travel outside of the Project area. Further, the site is within a TPA and a high-quality transit corridor adjacent to 6 bus routes, sidewalks, and bicycle routes that would reduce vehicle trips. For a project of this size, it is also common for the project to include travel demand measures (TDM) which would also reduce the number of trips.

As it relates to application of pass-by and internal capture reductions, the approach and methodology is consistent with what is documented in the *Trip Generation, 11th Edition, Institute of Transportation Engineers*

*(ITE), Washington, D.C. (2021)* and the *Trip Generation Handbook, 3rd Edition, published by ITE (September 2017)*. The internal capture adjustments applied to the Project account for internal interaction between the hotel, residential, and shopping center components of the Project; no internal capture adjustments were applied independently to the Project's shopping center component, and given the shopping center trip rates include restaurant land uses, there is not a need to separate internal capture rates for potential food uses. Relative to the Project's hotel component, the internal capture adjustment was appropriately applied to represent the interaction with the Project's shopping center component; no internal capture adjustment was applied to potential hotel supporting facilities that may include retail, restaurant, meeting and/or banquet facilities. The pass-by adjustment was applied to only the Project's shopping center component.

For the TDM reductions, the City of Santa Ana has adopted an ordinance for larger employers that they are required to implement programs to assist in reducing traffic demands. The Project would incorporate programs and policies to reduce vehicular miles traveled through transportation demand management policies consistent with applicable strategies contained with Section 36-606 – TDM strategy plan of the Santa Ana Municipal Code. These TDM measures could consist of the following and would be tailored to meet the needs of the proposed uses of the Project:

- Pedestrian Circulation Enhancements
- Bicycle Circulation Enhancements
- Transit Oriented Development and Transit Connection Enhancements
- Carpooling Programs
- Unbundled Residential Parking Cost

As a result of these potential TDM measures being applied a 5% reduction is considered conservative. It is likely the Project trips would have greater reductions than was assumed. The Federal Highway Administration (FHWA) identifies that TDM measures when implemented in a mixed-use setting could generate trip reductions ranging between 8% and 27%. As an example, if alternative commute services TDM measures (i.e., shuttle bus, vanpool, etc.) were to be implemented, a reduction ranging between 5% to 10% could be assumed. As such, the 5% reduction applied to the Traffic Study is conservative.

Additionally, a 5% non-auto trip reduction was applied to the proposed Project to account for other modes of transportation (i.e., public transit, ride share, walking, biking, etc.) and the "synergy" between the proposed Project and surrounding retail and commercial land uses.

As such, the Project would be required to implement such programs which would reduce trips. The trip reductions noted in the trip generation table are rather modest. Therefore, the trip reduction for pass-by, internal capture and TDM are considered appropriate, and no modifications are required or recommended.

**Response to I9.4:** In Section 5.13, *Transportation,* the Draft Supplemental EIR describes that the Project does not meet the threshold for a local-serving project.

**Response to I9.5:** As discussed in Section *5.5 Greenhouse Gas Emissions*, impacts related to greenhouse gas emissions were found to be less than significant as the Project would be consistent with applicable regulatory plans and policies to reduce greenhouse gas (GHG) emissions, such as the CARB Scoping Plan and the City of Santa Ana Climate Action Plan (CAP).

CEQA Guidelines Section 15064.4(a)(2) states that "A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Quantify greenhouse gas emissions resulting from a project; and/or (2) Rely on a qualitative analysis or performance-based standards." In the case of the proposed Project, the lead agency has decided to utilize a qualitative analysis based on consistency with applicable pans and policies to reduce GHG emissions to determine the significance of GHG impacts.

Additionally, CEQA Guidelines Section 15183.5 states, "Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document." The CARB Scoping plan includes policies and measures to reduce GHG emissions and ensure projects do not interfere with the state's implementation of AB 1279's target of 85 percent below 1990 levels and carbon neutrality by 2045. The City of Santa Ana CAP is put in place to ensure that the City is tracking and monitoring GHG emissions in order to meet the 2050 GHG reduction goal. Therefore, consistency with the CAP would ensure consistency with State and local policies, plans, and regulation aimed at reducing GHG emissions. As discussed in Tables 5.5-5 and 5.5-6 of the Draft Suplemental EIR, the proposed Project would be consistent with both the CARB Scoping Plan and the City of Santa Ana CAP with the inclusion of the proposed mitigation measures. Under CEQA Guidelines, this is a sufficient analysis of GHG impacts.

As discussed in Section 5.13 *Transportation,* the City of Santa Ana Traffic Impact Study Guidelines contain screening thresholds to determine whether a project would require further VMT analysis. The Project site is located within a Transit Priority Area (TPA) and a High-Quality Transit Area as identified by the City of Santa Ana Traffic Impact Study Guidelines and Figure 5.13-3 of the Draft Supplemental EIR. Additionally, the Project is not located on a site identified in Appendix C of the Santa Ana Traffic Impact Study, which identifies areas that cannot be screened out by being located in a TPA. Therefore, the proposed Project would result in less than significant impacts related to VMT, and no further analysis is required.

**Response I9.6:** Additionally, the VMT study states the opposite which is that the Project generates more than 110 net daily trips and thus would not screen out from a VMT Analysis when applied this screening criteria. Nevertheless, as stated in Response 18.2, the proposed Project would have a less than significant CEQA-related transportation impact related to VMT.

**Response I9.7:** Regarding trip distribution, the commenter did not provide any requests for clarification of the Project's trip distribution. Concerns regarding the method and detail of the potential transportation impact analysis are addressed above in Responses I9.2. Concerns related to the Project's trip generation are answered in Responses I9.2, I9.3, and I9.6. However, it should be noted that an analysis of the potential impact associated with the distribution of Project trips is not required per the State CEQA Guidelines. Senate Bill (SB) 743 changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the 2019 amendments to the State CEQA Guidelines, SB 743 directed that the revised CEQA Guidelines "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099[b][1]); and that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code Section 21099[b][2]). As such, pursuant to Public Resources Code Section 21099(b)(2), the Supplemental EIR is not required to analyze impacts related to traffic congestion. Nevertheless, a Traffic Impact Analysis was prepared for the Project and is publicly available on the City's Project website.

In addition, Policy M-1.4 from the City's Mobility Element states that the City intends to "maintain at least a vehicle level of service "D" for intersections of arterial streets, except in areas planned for high intensity development or traffic safety projects". The Project site has a General Plan land use designation of District Center-High, which is intended for transit-oriented and high-density urban villages and mixed uses.

**Response I9.8:** This comment serves as a conclusion to the letter and does not provide any specific environmental concern with the analysis within the Draft Supplemental EIR or requirements of the proposed Specific Plan. This comment letter will be forwarded to all decision makers as part the Final Supplemental EIR. No further response is warranted.

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# 3. Revisions to the Draft EIR

This section contains revisions to the Draft EIR based upon: (1) clarifications required to prepare a response to a specific comment; and/or (2) typographical errors. The revisions do not alter any of the significance conclusions that were previously disclosed in the Draft EIR. Changes made to the Draft EIR are identified here in ~~strikeout~~ text to indicate deletions and in double underlined text to signify additions.

## 3.1 Revisions in Response to Written Comments and City Changes to Text

The following text, organized by Draft EIR Chapters and Sections, has been revised in response to comments received on the Draft EIR and corrections identified by the City.

**Chapter 1.0, Executive Summary**

**Table 1-2, Summary of Impacts, Mitigation Measures, and Level of Significance on pages 1-9 to 1-20 is revised as follows:**

| Impact | Applicable Standard Conditions or Plan, Program, Policy | Level of Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|---|
| **5.1 Air Quality** | | | | |
| **Impact AQ-1:** The Project would result in a conflict with or obstruct implementation of the applicable air quality plan. | **PPP AQ-3: Rule 445.** The following measure shall be incorporated into construction plans and specifications as implementation of Rule 445. Wood burning stoves and fireplaces shall not be included or used in ~~the new development~~ residential dwelling units. | Potentially significant | **MM AQ-4: Prohibition of Fireplaces.** Project plans, specifications, and permitting shall state that ~~the installation of~~ wood-burning and natural gas devices are~~shall be~~ prohibited inside residential dwelling units. The purpose of this measure is to limit emissions of ROG, $NO_X$, and particulate matter emissions from wood-burning and natural gas devices used for primary heat, supplemental heat, or ambiance. This prohibition shall be noted on the tenant deed and/or lease agreements ~~for tenants to obey~~ to ensure that installation of wood-burning and natural gas devices do not occur during occupation of residences.<br><br>**MM AQ-7: Loading Dock Connections.** Prior to the approval of building permits, the City of Santa Ana shall confirm the construction documents demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. | Significant and unavoidable |
| **Impact AQ-2:** The Project would result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard. | | Potentially significant | | Significant and unavoidable |

| Impact | Applicable Standard Conditions or Plan, Program, Policy | Level of Significance before Mitigation | Mitigation Measures | Significance after Mitigation |
|---|---|---|---|---|
| **Cumulative** | | Potentially significant | GPU FEIR Mitigation Measures: MM AQ-1 through MM AQ-2, listed previously<br><br>Project Specific Mitigation Measures: MM AQ-1 through MM AQ-Z~~6~~, listed previously | Significant and unavoidable |

## Chapter 2.0, Introduction

**Page 2-1, Section 2.2, *Environmental Background*, is revised as follows:**

As identified in the GPU, the Project site is located within the South Bristol Street Focus Area and has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0 or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,958,114 ~~8,733,780~~ square feet (SF) of mixed uses, inclusive of residential uses, within the Project site. This level of redevelopment was included in the GPU FEIR buildout, and applicable mitigation measures were identified, as necessary, to reduce impacts.

## Chapter 3.0, Project Description

**Page 3-2, Section 3.2, *Project Background*, is revised as follows:**

The Project site is located within the South Bristol Street Focus Area. The GPU (Land Use Element Page 60) describes that this focus area will create opportunities to transform auto-oriented shopping plazas to walkable, bike-friendly, and transit-friendly urban villages that incorporate a mix of high intensity office and residential living with experiential commercial uses. As shown on Figure 3-4, South Bristol Street Focus Area and GPU Land Uses, the Project site has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,958,114 ~~8,733,780~~ square feet (SF) of mixed uses, inclusive of residential uses, within the Project site. This level of redevelopment was included in the GPU FEIR buildout, and applicable mitigation measures were identified, as necessary, to reduce impacts.

**Pages 3-25, Section 3.4, *Project Characteristics*, is revised as follows:**

The proposed Project includes a Greenlink, which would be a landscaped pedestrian paseo linking the north and south areas of the site, and would have landscaping, seating areas, and connections to residences, open space, and commercial areas. The proposed Project would also include offsite bikeway improvements to provide a Class IV bike lane with protected medians or Class II bike lane along the Project frontages of Bristol Street, MacArthur Boulevard, and Sunflower Avenue.

**Pages 3-26 through 3-27, Section 3.4, *Project Characteristics*, is revised as follows:**

**Roadway Improvements:** The proposed Project includes the following roadway improvements to the adjacent offsite roadway system:

- **Bristol Street** is a north-south six-lane roadway with raised landscaped medians that borders the site to the east. Project improvements include:
  - A Class II or IV bike lane with a planted buffer separation between vehicular and bicycle circulation

- New curb cuts for ingress/egress to/from Bristol Street
- Potential median modifications and/or signalization of driveway between Callen's Commons and Sunflower Avenue
- Landscaped setback with sidewalks and street trees

- **MacArthur Boulevard** is an east-west six-lane roadway with raised and striped medians that borders the site to the north. Project improvements include:
  - A Class II or IV bike lane with a landscaped buffer separation between vehicular and bicycle circulation
  - Bus stop improvements
  - Addition of an intersection for a new north/south local neighborhood roadway (Bristol Paseo) through the site
  - Curb cut at the intersection of the residential shared roadway
  - Construction of new site driveway intersection
  - Landscaped setback areas and street trees

- **South Plaza Drive** is a north-south four-lane roadway with raised landscaped medians that is west of the site between MacArthur Boulevard and Callen's Common. Project improvements include:
  - New curb cuts for ingress/egress
  - Signalization at intersection with Callen's Common
  - Landscaped setback areas and street trees

- **Sunflower Avenue** is an east-west six lane roadway that borders the site to the south. The centerline of the roadway is the boundary with the City of Costa Mesa to the south. Project improvements include:
  - Potential median modification and/or signalization of the proposed Bristol Paseo driveway, subject to improvements/realignment of South Coast Plaza driveway
  - Construction of eastbound left-turn lane on Sunflower Avenue at Bristol Paseo with the construction of a new driveway that would be realigned approximately 110 feet to the east of the existing driveway.
  - Installation of a five-phase traffic signal at Bristol Paseo, subject to the improvements/realignment of the South Coast Plaza driveway.
  - Class II or IV bike lane with a landscaped buffer separation between vehicular and bicycle circulation
  - Bus stop improvements
  - Landscape and sidewalk improvements
  - Intersection with a new street neighborhood street segment

- **Callen's Common** is an existing private road that roughly bisects the Project site. The east-west roadway has two travel lanes. Project improvements include:
  - Expanded parkway with street trees and improved sidewalks
  - Greenlink pedestrian crossing
  - Reduction of travel lanes to a two-lane street between South Plaza Drive and the Bristol Paseo to allow for on-street parking
  - Drop-off and loading areas
  - Addition of pedestrian paths on both sides of the roadway
  - ~~Potential~~ signalization of Callen's Commons and South Plaza Drive

**Parking:** The majority of parking would be provided in shared/joint/reciprocal free-standing, subterranean and above-grade parking garages. Up to two levels of subterranean parking would be included in Phase 1

and one level of subterranean parking would be included in Phase 2 and Phase 3. The proposed Project also includes limited on-street parking. Parking would be provided at the ratios listed in Table 3-3.

**Table 3-1: Proposed Parking Standards**

| Use | Ratio (min) |
|---|---|
| Commercial, inclusive of food service | 4 spaces/1,000 SF |
| Senior Care/Assisted Living | 0.6 space/unit |
| Residential, inclusive of Guest | 1.3 spaces/unit |
| Hotel, inclusive of ancillary retail, food service, and conference | 0.6 space/room (if hotel offers shuttle service)<br>1.0 space/room (without shuttle service) |
| Office | 3 spaces/1,000 SF |

**Page 3-27, Section 3.4, *Project Characteristics*, is revised as follows:**

- **Water:** The proposed Project would install new onsite water infrastructure that would connect to water pipelines that are adjacent to the site. The onsite improvements include replacement of the existing 12-inch water line in Callen's Common with a new 12-inch main and construction of a 12-ince water main in Bristol Paseo and connection of the new onsite infrastructure to the replacement line. ~~The proposed Project also includes offsite infrastructure improvements that would replace a portion of the existing 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Avenue with a 12-inch water main. The 12-inch water mains in Sunflower Avenue from South Plaza Drive to Bristol Street and Bristol Street from MacArthur to Sunflower would be replaced "in-kind" with new 12-inch water mains.~~ An approximately 600-foot section of the existing 12-inch water main located at the northerly portion of Plaza Drive (immediately south of MacArthur Boulevard) would be replaced in conjunction with the Specific Plan. The other existing off-site water mains that provide water service to the Specific Plan area are appropriately sized, including the existing 12-inch mains located in Bristol Street, Sunflower Avenue, and South Plaza Drive. Therefore, replacement of those mains is not required for or as part of the Specific Plan. However, the off-site water mains may, in the future and at the discretion of the City, be upgraded as part of a City Public Works project. Although not required for the proposed Specific Plan project, replacement of those water mains is analyzed in this Draft Supplemental EIR.

**Page 3-36, Section 3.5, *Discretionary Approvals and Permits*, is revised as follows:**

The responsible agencies, trustee agencies, and other public agencies which may be required to grant approvals and permits or coordinate as part of implementation of the proposed Project include, but are not limited to:

- **Federal Aviation Administration (FAA):** Based on the location of the Project site and the proposed height of the buildings, the Applicant will file Form 7460-1, Notice of Actual Construction or Alteration, with the FAA. The FAA will use information provided in Form 7460-1 and other data to conduct an aeronautical review for the proposed Project.
- **California Department of Transportation (Caltrans):** Future improvements from future development in the Specific Plan could potentially require encroachment permits.
- **Orange County Airport Land Use Commission (ALUC):** The Project site is within the Airport Environs Land Use Plan (AELUP) Notification Area for John Wayne Airport.
- **South Coast Air Quality Management District (SCAQMD):** Issuance of any permits to construct or permits to operate.

- **Santa Ana Regional Water Quality Control Board (RWQCB):** Issuance of a National Pollution Discharge Elimination System (NPDES) Permit and Construction General Permit. The Santa Ana RWQCB would also issue a Dewatering Permit consistent with the General Permit.
- **City of Costa Mesa Right-of-Way Construction/Encroachment Permit.** Issuance of a permit to allow for infrastructure construction activities in rights-of-way of the City of Costa Mesa.
- **Orange County Transportation Authority.** Issuance of permits associated with bus stop improvements.

**Chapter 4.0, Environmental Setting**

**Page 4-13, Section 4.14, *Public Services,* is revised as follows:**

As provided by the OCFA 2022 Statistical Annual Report, OCFA fire stations responded to ~~there were~~ 30,604 incidents resulting in 40,244-unit responses~~40,224 calls for service from the 10 fire stations in the City in 2022~~. Of the calls for service, 7~~56.8~~ percent (22,835) were for emergency medical calls, 2~~1.8~~ percent (734) were for fire incidents, and 23~~17.5~~ percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

**Chapter 5.1, Air Quality**

**The second paragraph on Page 5.1-23, Section 5.1, *Air Quality,* Impact AQ-1 is revised as follows:**

The Project site is located within the GPU South Bristol Street Focus Area and has a GPU designation of District Center-High (DC-5), which has a maximum FAR of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses, within the Project site. The GPU was adopted in April 2022 and went into effect on May 26, 2022, prior to the SCAQMD 2022 AQMP.

**The fourth paragraph on Page 5.1-27 and first paragraph on page 5.1-28, Section 5.1, *Air Quality,* Impact AQ-2 is revised as follows:**

As shown, emissions from operation of Phase 1 of the proposed Project would exceed the thresholds of significance for ROG. The GPU EIR Mitigation Measure AQ-2 requires electrical hookups for refrigerated delivery trucks. Additionally, Project Mitigation Measures AQ-3 through AQ-6 have been included to reduce operational emissions. Mitigation Measure AQ-3 requires the implementation of a Transportation Demand Management (TDM) program to reduce single occupant vehicle trips and encourage transit. Mitigation Measure AQ-4 prohibits the use of permanent wood-burning devices (consistent with SCAQMD Rule 445), and Mitigation Measure AQ-5 requires all landscaping equipment used on site to be 100 percent electrically powered. Mitigation Measure AQ-6 requires the implementation of "Super-Compliant" low VOC paint during operational maintenance. Mitigation Measure AQ-7 requires the provision of electrical connections at loading docks for refrigerated trailers.

**The third and fourth paragraph on page 5.1-29, Section 5.1, *Air Quality*, Impact AQ-2 is revised as follows:**

**Phase 1 Operations + Phase 2 Construction.** Phase 1 has the potential to be operational during Phase 2 construction. The overlapping emissions of Phase 1 operations and Phase 2 construction are listed in Table

5.1-18, which shows that these overlapping emissions would exceed SCAQMD thresholds for ROG and NOx and that Mitigation Measures AQ-1 through AQ-Z~~6~~ would be required.

**Table 5.1-2: Unmitigated Overlapping Emissions - Phase 1 Operations + Phase 2 Construction**

| Source | Emissions (Maximum Pounds Per Day) | | | | | |
|---|---|---|---|---|---|---|
| | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
| Phase 1 Operations | 62.01 | 7.42 | 185.78 | 0.30 | -15.06 | 4.10 |
| Phase 2 Construction | 127.92 | 151.33 | 176.09 | 0.36 | 17.55 | 11.25 |
| **Total Unmitigated Overlapping Emissions** | **189.93** | **158.75** | **361.87** | **0.66** | **2.49** | **15.34** |
| SCAQMD Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| **Exceeds Threshold?** | **Yes** | **Yes** | **No** | **No** | **No** | **No** |

Source: Air Quality Assessment, Appendix B.

Table 5.1-19 shows that overlapping emissions would continue to exceed SCAQMD thresholds for ROG after implementation of Mitigation Measures AQ-1 through AQ-Z~~6~~. The majority of the proposed Project's ROG emission exceedances are from consumer products that the City cannot control emissions of; and therefore, cannot feasibly be reduced below the SCAQMD thresholds. As a result, impacts from overlapping emissions of Phase 1 operations and Phase 2 construction would be significant and unavoidable.

**The first and second paragraph on page 5.1-30, Section 5.1, *Air Quality*, Impact AQ-2 is revised as follows:**

**Phase 1 Operations + Phase 2 Operations + Phase 3 Construction.** Phase 1 and Phase 2 have the potential to be operational during Phase 3 construction. The overlapping emissions of Phase 1 and Phase 2 operations and Phase 3 construction are listed in Table 5.1-20, which shows that these overlapping emissions would exceed SCAQMD thresholds for ROG, NOx, and CO and that Mitigation Measures AQ-1 through AQ-Z~~6~~ would be required.

**Table 5.1-3: Unmitigated Overlapping Emissions - Phases 1 and 2 Operations + Phase 3 Construction**

| Source | Emissions (Maximum Pounds Per Day) | | | | | |
|---|---|---|---|---|---|---|
| | **ROG** | **$NO_X$** | **CO** | **$SO_2$** | **$PM_{10}$** | **$PM_{2.5}$** |
| Phase 1 Operations | 62.01 | 7.42 | 185.78 | 0.30 | -15.06 | 4.10 |
| Phase 2 Operations | 38.13 | 3.66 | 141.53 | -39.54 | 10.48 | 2.11 |
| Phase 3 Construction | 121.86 | 188.71 | 297.01 | 0.91 | 109.27 | 27.04 |
| **Total Unmitigated Overlapping Emissions** | **222.01** | **199.79** | **624.31** | **-38.33** | **104.69** | **33.25** |
| SCAQMD Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| **Exceeds Threshold?** | **Yes** | **Yes** | **Yes** | **No** | **No** | **No** |

Source: Air Quality Assessment, Appendix B.

Table 5.1-21 shows that overlapping emissions would continue to exceed SCAQMD thresholds for ROG and NOx after implementation of Mitigation Measures AQ-1 through AQ-Z~~6~~. As detailed previously, the majority of the proposed Project's emission exceedances are from consumer product and mobile sources and cannot feasibly be reduced below the SCAQMD thresholds. Emissions from motor vehicles are controlled by state and federal standards and the City and proposed Project have no control over these standards. Therefore, impacts from overlapping emissions of Phases 1 and 2 operations and Phase 3 construction would be significant and unavoidable.

**The first paragraph on page 5.1-31, Section 5.1, *Air Quality*, Impact AQ-2 is revised as follows:**

**Significant and Unavoidable Impact.** The mitigated operational emissions from Phase 1, Phase 2, Phase 3 combined are provided in Table 5.1-22, which shows that after implementation of Mitigation Measures AQ-1 through AQ-~~6~~7 the net increase in operational emissions from the proposed Project at buildout would exceed thresholds for ROG. As detailed previously, ROG emissions are generated from consumer products, the emissions of which are not controlled by either the City or the applicant. Therefore, operational air quality impacts would remain significant and unavoidable after implementation of mitigation.

**Section 5.1.8 on page 5.1-44, Section 5.1, *Air Quality*, is revised as follows:**

**PPP AQ-3: Rule 445.** The following measure shall be incorporated into construction plans and specifications as implementation of Rule 445. Wood burning stoves and fireplaces shall not be included or used in ~~the new development~~ residential dwelling units.

**Mitigation Measure AQ-4 on page 5.1-48, Section 5.1, *Air Quality*, is revised as follows:**

**MM AQ-4: Prohibition of Fireplaces.** Project plans, specifications, and permitting shall state that ~~the installation of~~ wood-burning and natural gas devices are ~~shall be~~ prohibited inside residential dwelling units. The purpose of this measure is to limit emissions of ROG, $NO_X$, and particulate matter emissions from wood-burning and natural gas devices used for primary heat, supplemental heat, or ambiance. This prohibition shall be noted on the tenant deed and/or lease agreements ~~for tenants to obey~~ to ensure that installation of wood-burning and natural gas devices do not occur during occupation of residences.

**Section 5.1.10 on page 5.1-49, Section 5.1, *Air Quality*, is revised as follows:**

**MM AQ-6: Low VOC Paint (Operations).** The Project Applicant shall require by contract specifications for commercial development to use interior and exterior architectural coatings (paint and primer including parking lot paint) products that have a volatile organic compound rating of 10 grams per liter or less. Contract specifications shall be reviewed and approved by the City of Santa Ana prior to the issuance of occupancy permits. This measure shall be made a condition of approval for continued upkeep of the property.

**MM AQ-7: Loading Dock Connections.** Prior to the approval of building permits, the City of Santa Ana shall confirm the construction documents demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.

**Chapter 5.5, Greenhouse Gas Emissions**

**The first paragraph on Page 5.5-16, Section 5.5, *Greenhouse Gas Emissions*, Impact GHG-1 is revised as follows:**

The Greenhouse Gas Emissions Assessment (Appendix I) describes that a majority of the GHG emissions (56 percent unmitigated and 52 percent mitigated) generated from the proposed Project at buildout are associated with non-construction related mobile sources. As detailed in Section 5.1, *Air Quality*, and listed below, proposed Project Mitigation Measure AQ-3: Vehicle Trip Reduction, Mitigation Measure AQ-4: Prohibition of Fireplaces, Mitigation Measure AQ-5: Electric Landscape Equipment, ~~and~~ Mitigation Measure AQ-6: Low VOC Paint (Operations), and Mitigation Measure AQ-7: Loading Dock Connections would reduce operational air quality emissions and would also reduce GHG emissions.

**Section 5.5.10 on page 5.5-27, Section 5.5, *Greenhouse Gas Emissions*, is revised as follows:**

Proposed Specific Plan Project Mitigation Measures

**Mitigation Measure AQ-3: Vehicle Trip Reduction.** As listed previously in Section 5.1, *Air Quality*.

**Mitigation Measure AQ-4: Prohibition of Fireplaces.** As listed previously in Section 5.1, *Air Quality*.

**Mitigation Measure AQ-5: Electric Landscape Equipment.** As listed previously in Section 5.1, *Air Quality*.

**Mitigation Measure AQ-6: Low VOC Paint (Operations)**. As listed previously in Section 5.1, *Air Quality*.

**Mitigation Measure AQ-7: Loading Dock Connections.** As listed previously in Section 5.1, *Air Quality*.

**Section 5.5-10 on page 5.5-28, Section 5.5, *Greenhouse Gas Emissions*, is revised as follows:**

**Mitigation Measure GHG-5: Energy Efficient Appliances.** All major applicant provided in-unit residential appliances (e.g., dishwashers, refrigerators, clothes washers and dryers, water heaters, and for space heating) provided/installed shall be electric (i.e., appliances that do not use natural gas, propane, or other fossil fuels) and Energy Star certified or of equivalent energy efficiency where applicable. Prior to the issuance of the certificate of occupancy, the City of Santa Ana shall verify implementation of this requirement. Installation of electric Energy Star–certified or equivalent appliances shall be verified by the Building Safety Division ~~Planning and Building Department~~ during plan check.

**Chapter 5.6, Hazards and Hazardous Materials**

**The sixth paragraph on Page 5.6-27, Section 5.6, *Hazards and Hazardous Material,* Impact HAZ-5 is revised as follows:**

The proposed Project consists of residential and commercial uses that would include the use of typical electronics, such as computers, televisions, and other electronics with wireless capability. These types of electronics are currently being used by the existing commercial ~~industrial~~ land uses on the site, and other uses in the vicinity of the site. The new residential and commercial uses on the site would use similar technology that does not cause electronic interference that could affect aircraft. Thus, impacts related to electronic interference with operations of the SNA would not occur.

**Chapter 5.8, Land Use and Planning**

**The second paragraph on Page 5.8-6, Section 5.8, *Land Use and Planning*, is revised as follows:**

Table LU-8 of the GPU identifies the DC-5 area as allowing a maximum Floor Area Ratio (FAR) of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories. The GPU's District Center designation allows up to 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses, based on the maximum FAR of 5.0 over the approximately 41.13-gross-acre site.

**The first paragraph on Page 5.8-25, Section 5.8, *Land Use and Planning*, Impact LU-2 is revised as follows:**

**General Plan Land Use Designation.** The Project site currently has a General Plan Land Use designation of District Center-High (DC-5), which has a maximum Floor Area Ratio (FAR) of 5.0, or 125 dwelling units per acre (du/ac) and a maximum height of 25 stories that allows up to 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses, within the Project site.

## Chapter 5.10, Population and Housing

**Page 5.10-10, Section 5.10, *Population and Housing,* is revised as follows:**

Infrastructure

**Roadways.** The Project site is adjacent to existing roadways that would not be extended or upsized to serve the proposed Project. Although the proposed Project includes roadway improvements, they are related to installing ingress/egress to the proposed uses on the Project site and providing a multi-modal circulation system by enhancing pedestrian and bicycle facilities. As detailed in Chapter 3.0, *Project Description*, these roadway improvements on each street include the following:

- **Bristol Street:** landscaped setback with sidewalks; Class II or IV bike lane; bus stop improvements; new curb cuts for ingress/egress to/from Bristol; potential median modifications and/or signalization of driveway between Callen's Commons and Sunflower Avenue.
- **MacArthur Boulevard:** Class II or IV bike lane; bus stop improvements; new intersection with onsite local roadway (Bristol Paseo); curb cuts, and landscaped setback areas with street trees.
- **South Plaza Drive:** curb cuts for ingress/egress; signalization at Callen's Common; landscaped setback areas with street trees.
- **Sunflower Avenue**: median modification and/or signalization at Bristol Paseo; westbound right-turn lanes at Bristol Paseo; Class II or IV bike lane; bus stop improvements; landscape and sidewalk improvements.
- **Callen's Common:** landscaped sidewalks; Greenlink pedestrian crossing; reduction of travel lanes to a two-lane street to allow for on-street parking and drop-off and loading areas; pedestrian pathways on both sides of roadway.

## Chapter 5.11, Public Services

**The third paragraph on Page 5.11-3, Section 5.11, *Public Services,* is revised as follows:**

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in demand for fire services. This includes 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses, within the Project site. The GPU FEIR determined that future development under the GPU would comply with the California Fire and Building Codes, California Health and Safety Code, City ordinances, and applicable national standards to reduce needs related to fire services. The GPU FEIR determined that additional staff, equipment, and facilities would come from the City's general fund to serve the growing population. Therefore, the GPU FEIR determined that impacts related to fire protection and emergency services and facilities would be less than significant.

**The fifth paragraph on Page 5.11-11, Section 5.11, *Public Services,* is revised as follows:**

The GPU FEIR determined that buildout of the GPU would consist of development of up to 36,261 housing units and 5,849,220 SF of non-residential development; resulting in a total of 360,077 residents and 170,416 jobs that would generate an increase in demand for police services. This includes 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses, within the Project site. The GPU FEIR describes that the Santa Ana Police Department does not apply a staffing ratio but instead evaluates performance and needs. The GPU FEIR determined that that buildout of the GPU would result in the need for additional officers; the number of which would be based on the number of calls for service and average response times

in the future. The GPU FEIR also determined that impacts to police services would be less than significant and did not identify the need for expanded or new policing facilities.

**Table 5.11-1 on Page 5.11-3, Section 5.11, *Public Services,* is revised as follows:**

**Table 5.11-4: Santa Ana Fire Stations Near the Project Site**

| Fire Station | Location | Distance from Site | Equipment | Staffing |
|---|---|---|---|---|
| Station 76 | 950 West MacArthur Boulevard | 0.5 mile | 1 Paramedic Truck | 3~~1~~ Fire Captain,<br>3~~1~~ Engineer,<br>6~~2~~ Firefighters/Paramedics |
| Station 77 | 2317 South Greenville Street | 2.2 miles | 1 Paramedic Truck | 3~~1~~ Fire Captain,<br>3~~1~~ Engineer,<br>6~~2~~ Firefighters/Paramedics |
| Station 74 | 1427 South Broadway | 2.9 miles | 1 Paramedic Engine | 3 Fire Captains/Paramedics<br>3 Fire Apparatus Engineers<br>3 Firefighters/Paramedics<br>3 Firefighters |
| Station 79 | 1320 East Warner | 3.0 miles | 1 Paramedic Engine | 3 Fire Captains<br>3 Fire Apparatus Engineers<br>6 Firefighters/Paramedics |
| Station 73 | 419 South Franklin Street | 3.4 miles | 1 Paramedic Engine | 3 Fire Captains/Paramedics<br>3 Fire Apparatus Engineers<br>3 Firefighters/Paramedics<br>3 Firefighters |
| Station 75 | 120 West Walnut | 4.1 mile | 1 Paramedic Engine<br>1 Paramedic Truck | 6 Fire Captains/Paramedics<br>6 Fire Apparatus Engineers<br>6 Firefighters/Paramedics<br>6 Firefighters |

Sources: GPU FEIR, Section 5.14, Public Services, and OCFA 2023

**The first paragraph on Page 5.11-3, Section 5.11, *Public Services,* is revised as follows:**

As provided by the OCFA 2022 Statistical Annual Report, OCFA fire stations responded to ~~there were~~ 30,604 incidents resulting in 40,244-unit responses~~40,224 calls for service from the 10 fire stations in the City in 2022~~. Of the calls for service, 7~~5~~56.8 percent (22,835) were for emergency medical calls, 2~~1~~.8 percent (734) were for fire incidents, and 23~~17.5~~ percent (7,035) were for other incidents, which includes: cancelled service calls, ruptures, hazardous conditions, false alarms, and miscellaneous calls.

## Chapter 5.13, Transportation

**The second and fourth paragraphs on Page 5.13-11, Section 5.13, *Transportation,* Impact TR-1 is revised as follows:**

The proposed Project would continue to provide vehicular access to the site from the adjacent roadways, but would provide new driveways: five unsignalized right-turn only driveways and one signalized driveway along South Plaza Drive, two unsignalized right-turn only driveways along MacArthur Boulevard, three unsignalized right-turn only driveways along Bristol Street (one of which would be truck driveway), two signalized driveways on Bristol Street, and two unsignalized right-turn only driveways and one signalized driveway along Sunflower Avenue. In addition, the proposed Project would provide pedestrian and bicycle access to and through the site from installation of new and/or reconstructed landscaped sidewalks, the

internal Greenlink pedestrian circulation, and Class II or IV bike lanes on Bristol Street, MacArthur Boulevard, and Sunflower Avenue along the Project site frontage.

As shown on Figure 3-12, *Proposed Circulation Plan,* the Related Bristol Specific Plan identifies multiple circulation improvements to connect the proposed redevelopment of the site to the existing circulation system adjacent to the site in a manner that would implement efficient multi-modal circulation to, from, and within the Project site, which includes the following:

***Bristol Street*** improvements include installation of a widened parkway with street trees, new curb cuts for ingress/egress to/from the Project site, right-of-way dedication for median reconstruction and modifications, a Class II or IV bike lane per the City's Mobility Element, and bus stop improvements. The proposed Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

**The first and second paragraphs on Page 5.13-12, Section 5.13, *Transportation,* Impact TR-1 is revised as follows:**

***MacArthur Boulevard*** improvements include right-of-way dedication for a Class II or IV bike lane per the City's Mobility Element, bus stop improvements, planted setback areas, construction of a new landscaped median, and street trees. The Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- Driveway G at MacArthur Boulevard: The proposed Project would install an unsignalized right-turn only driveway at Driveway G.
- Driveway H at MacArthur Boulevard: The proposed Project would install an unsignalized right-turn only driveway at Driveway H.

***Sunflower Avenue*** improvements include potential median modification, bus stop improvements, and potential right-of-way dedication for a Class II or IV bike lane. The proposed Project driveways include the following, as shown on Figure 5.13-1, *Proposed Project Driveways*:

- No. 19 – Project Driveway at Sunflower Avenue: a new driveway would be installed and realigned approximately 110 feet to the east of the existing driveway. The proposed Project would include restriping along Sunflower Avenue and modification of the existing median. The proposed Project would install a five-phase traffic signal, subject to the improvements/realignment of the South Coast Plaza driveway and coordination with the City of Costa Mesa.
- Driveway A at Sunflower Avenue: The proposed Project would install an unsignalized right-turn only driveway at Driveway A.
- Driveway B at Sunflower Avenue: The proposed Project would install an unsignalized right-turn only driveway at Driveway B.

**The second paragraph on Page 5.13-13, Section 5.13, *Transportation,* Impact TR-1 is revised as follows:**

**Transit Facilities:** As described previously, the Project site is located within a TPA and a high-quality transit corridor and is served by OCTA Routes 55, 57, 76, 86, 150, and 553. These existing transit services would continue to serve the ridership in the area and would serve residents, employees, and visitors of the Project site. The proposed Project would not alter or conflict with existing transit stops and schedules, and impacts related to transit services would not occur.

**Bicycle Facilities:** As detailed previously, Bristol Street has Class II bike lanes. The Related Bristol Specific Plan includes installation of a Class II or IV bike lane on Bristol Street, MacArthur Boulevard, and Sunflower Avenue with a median buffer. Therefore, the proposed Project would enhance existing bicycle facilities within the Project vicinity. Implementation of the proposed Project would not conflict with existing or planned bike lanes or bicycle transportation. Thus, impacts related to bicycle facilities would not occur.

## Chapter 5.15, Utilities and Service Systems

**The second paragraph on Page 5.15-10, Section 5.15, *Utilities and Service Systems*, Impact UT-1 is revised as follows:**

The proposed Project would demolish the existing buildings on the Project site and remove the onsite infrastructure, including water mains. The proposed Project would install a new onsite water infrastructure system that would connect to water mains adjacent to the site. The onsite improvements include replacement of the existing 12-inch water main in Callen's Common between South Plaza Drive and Bristol Street with a new 12-inch water main and construction of a 12-inch water main in Bristol Paseo from MacArthur Boulevard to Sunflower Avenue with connections to other onsite private water infrastructure. ~~The proposed Project also includes offsite infrastructure improvements that would replace a portion of the 12-inch water main in South Plaza Drive from MacArthur Boulevard to Sunflower Ave with a 12-inch water main. Also, the existing 12-inch water mains in Sunflower Avenue from South Plaza drive to Bristol Street and Bristol Street from MacArthur Boulevard to Sunflower Avenue would be replaced "in-kind" with new 12-inch water mains.~~ An approximately 600-foot section of the existing 12-inch water main located at the northerly portion of Plaza Drive (immediately south of MacArthur Boulevard) would be replaced in conjunction with the Specific Plan. The other existing off-site water mains that provide water service to the Specific Plan area are appropriately sized, including the existing 12-inch mains located in Bristol Street, Sunflower Avenue, and South Plaza Drive. Therefore, replacement of those mains is not required for or as part of the Specific Plan. However, the off-site water mains may, in the future and at the discretion of the City, be upgraded as part of a City Public Works project. The new onsite and new offsite water infrastructure would convey water supplies to the proposed residences, commercial uses, and landscaping through plumbing/landscaping fixtures that would be compliant with the Title 24/CALGreen Plumbing Code for efficient use of water, which would be ensured through the City's development permitting process.

## Chapter 6. Alternatives

**The second paragraph on Page 6-5, Section 6.5, Alternatives Considered but Rejected is revised as follows:**

- **No Project/Buildout of Existing General Plan Designation.** Buildout of the Project site at the maximum allowable density pursuant to the City's General Plan DC-5 land use designation was eliminated from further consideration. The DC-5 land use designation allows for development of the Project site at a maximum 125 dwelling units per acre (du/ac) and a FAR of 5.0, which would allow for development of up to 8,958,114 ~~8,733,780~~ SF of mixed uses, inclusive of residential uses. The proposed Project would result in approximately 91 du/ac and a FAR of 2.7. The No Project/Buildout of Existing General Plan Designation Alternative would result in an 85 percent intensification of uses onsite in comparison to the proposed Project. This alternative would require demolition of the same structures, require similar mitigation, and would increase air quality emissions and require more parkland in comparison to the proposed Project. Given the increased intensity of the No Project/Buildout of the Existing General Plan Designation Alternative, it would not result in fewer environmental impacts than the proposed Project. Therefore, the No Project/Buildout of Existing General Plan Designation Alternative was rejected from further consideration.

# Chapter 4. Mitigation Monitoring and Reporting Program

## 4.1 Introduction

The California Environmental Quality Act (CEQA) requires a lead or public agency that approves or carries out a project for which an Environmental Impact Report has been certified which identifies one or more significant adverse environmental effects and where findings with respect to changes or alterations in the project have been made, to adopt a "…reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment" (CEQA, Public Resources Code Sections 21081, 21081.6).

A Mitigation Monitoring and Reporting Program (MMRP) is required to ensure that adopted mitigation measures are successfully implemented for the Related Bristol Specific Plan Project (Project). The City of Santa Ana is the Lead Agency for the Project and is responsible for implementation of the MMRP. This report describes the MMRP for the Project and identifies the parties that will be responsible for monitoring implementation of the individual mitigation measures in the MMRP.

## 4.2 Mitigation Monitoring and Reporting Program

The MMRP for the Project will be active through all phases of the Project, including design, construction, and operation. The attached table identifies the mitigation program required to be implemented by the City for the Related Bristol Specific Plan Project. The table identifies the Standard Conditions of Approval; Plan, Program, Policies (PPPs); and mitigation measures required by the City to mitigate or avoid significant adverse impacts associated with the implementation of the Project, the timing of implementation, and the responsible party or parties for monitoring compliance.

The MMRP also includes a column that will be used by the compliance monitor (individual responsible for monitoring compliance) to document when implementation of the measure is completed. As the Plan, Program, Policies; and mitigation measures are completed, the compliance monitor will sign and date the MMRP, indicating that the required actions have been completed.

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**TABLE 4-1: MITIGATION MONITORING AND REPORTING PROGRAM**
**RELATED BRISTOL SPECIFIC PLAN PROJECT FINAL SUPPLEMENTAL EIR**

| Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval | Timing | Responsible for Ensuring Compliance / Verification | Date Completed and Initials |
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| **AIR QUALITY** | | | |
| **Plan, Program, or Policy PPP AQ-1: SCAQMD Rule 403.** The following measures shall be incorporated into construction plans and specifications as implementation of SCAQMD Rule 403:<br>○ All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.<br>○ The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.<br>○ The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less. | Prior to demolition and construction permits | City of Santa Ana Building Safety Division | |
| **Plan, Program, or Policy PPP AQ-2: SCAQMD Rule 1113.** The following measure shall be incorporated into construction plans and specifications as implementation of SCAQMD Rule 1113. The Project shall only use "Low-Volatile Organic Compounds (VOC)" paints (no more than 50 gram/liter of VOC) consistent with SCAQMD Rule 1113. | Prior to demolition and construction permits | City of Santa Ana Building Safety Division | |
| **Plan, Program, or Policy PPP AQ-3: SCAQMD Rule 445.** The following measure shall be incorporated into construction plans and specifications as implementation of SCAQMD Rule 445. Wood burning stoves and fireplaces shall not be included or used in residential dwelling units. | Prior to demolition and construction permits | City of Santa Ana Building Safety Division | |
| **Plan, Program, or Policy PPP AQ-4: CALGreen Building Standards MERV 13 Filters.** Indoor air quality within mechanically ventilated buildings shall comply with Section 5.504.5.3 (Filters) of the California Green Building Standards Code Part 11 that requires utilization of at least a Minimum Efficiency Reporting Value (MERV) of 13 air filtration systems. The Code | Prior to issuance of certificates of occupancy | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| requires MERV 13 filters to be installed prior to occupancy and replaced and/or maintained as directed by the manufacturer. | | | |
| **GPU FEIR Mitigation Measure AQ-1:** Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City. Mitigation measures to reduce construction-related emissions could include, but are not limited to:<br>• Require fugitive-dust control measures that exceed South Coast AQMD's Rule 403, such as:<br>o Use of nontoxic soil stabilizers to reduce wind erosion.<br>o Apply water every four hours to active soil-disturbing activities.<br>o Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.<br>• Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.<br>• Ensure that construction equipment is properly serviced and maintained to the manufacturer's standards. | Prior to discretionary approval | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| • Limit nonessential idling of construction equipment to no more than five consecutive minutes.<br>• Limit onsite vehicle travel speeds on unpaved roads to 15 miles per hour.<br>• Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area. Use Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super- Compliant architectural coating manufactures can be found on the South Coast AQMD's website. | | | |
| **GPU FEIR Mitigation Measure AQ-2:** Prior to discretionary approval by the City of Santa Ana for development projects subject to CEQA (California Environmental Quality Act) review (i.e., non-exempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the City of Santa Ana for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD's adopted thresholds of significance, the City of Santa Ana shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:<br>• For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.<br>• Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate | Prior to discretionary approval | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| applications to optimize renewable energy generation systems and avoid peak energy use.<br><br>• Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485).<br><br>• Provide changing/shower facilities as specified in Section A5.106.4.3 of the CALGreen Code (Nonresidential Voluntary Measures).<br><br>• Provide bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code and Sec. 41-1307.1 of the Santa Ana Municipal Code.<br><br>• Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of the CALGreen Code (Nonresidential Voluntary Measures).<br><br>• Provide facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.<br><br>• Applicant-provided appliances (e.g., dishwashers, refrigerators, clothes washers, and dryers) shall be Energy Star–certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star– certified or equivalent appliances shall be verified by Building & Safety during plan check.<br><br>• Applicants for future development projects along existing and planned transit routes shall coordinate with the City of Santa Ana and Orange County Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate. | | | |
| **Mitigation Measure AQ-1: Construction Exhaust and Dust Control.** Prior to issuance of Phase 1, Phase 2, and Phase 3 grading permits, the Project | Prior to issuance of grading permits | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| Applicant shall prepare and submit documentation to the City of Santa Ana Building and Safety Division that demonstrates the following:<br>• Require fugitive-dust control measures that exceed SCAQMD Rule 403 requirements:<br>  ○ Apply water at least three times daily to active soil-disturbing activities.<br>  ○ Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.<br>  ○ Limit onsite vehicle travel speeds on unpaved roads to 15 miles per hour.<br>  ○ Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the project area.<br>• All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board Tier 4 Final off-road emissions standards. Requirements for Tier 4 Final equipment shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each equipment's Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the City at the time of mobilization of each applicable unit of equipment.<br>• Construction equipment shall be properly maintained according to manufacturer specifications. All equipment maintenance records and data sheets, including design specifications and emission control tier classifications shall be kept onsite and furnished to the lead agency or other regulators upon request.<br>• All construction equipment and delivery vehicles shall be turned off when not in use, or limit onsite idling for no more than 5 minutes in any 1 hour. | | | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| • Onsite electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. Construction contracts shall require all off-road equipment with a power rating below 19 kilowatts (25 horsepower) (e.g., plate compactors, pressure washers, etc.) used during project construction be battery powered.<br>• Prepare a construction traffic control plan detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.<br>• Provide information on transit and ridesharing programs and services to construction employees. | | | |
| **Mitigation Measure AQ-2: Low VOC Paint (Construction).** Construction plans, specifications, and permitting shall require that during construction, the Project shall use "Super-Compliant" low VOC paints which have been reformulated to exceed the regulatory VOC limits (i.e., have a lower VOC content than what is required) put forth by SCAQMD's Rule 1113 for all architectural coatings. Super-Compliant low VOC paints shall be no more than 10g/L of VOC. Prior to issuance of building permits, the City of Santa Ana shall confirm that plans include the following specifications:<br>• All architectural coatings will be Super-Compliant low VOC paints.<br>• Recycle leftover paint. Take any leftover paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints.<br>• Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.<br>• For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into | Prior to issuance of construction permits related to architectural coatings | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| the ground or the storm drain. Set aside the can of cleanup water and take it to the hazardous waste center (www.cleanup.org).<br>• Use compliant low-VOC cleaning solvents to clean paint application equipment.<br>• Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions.<br>• Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable.<br>• Use high-pressure/low-volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency. | | | |
| **Mitigation Measure AQ-3: Vehicle Trip Reduction.** Develop a qualifying Commute Trip Reduction (CTR)/ Transportation Demand Management (TDM) plan to reduce mobile GHG emissions for all uses. The TDM plan shall be approved by the City of Santa Ana prior to the issuance of building permits. The TDM plan shall discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The following measures shall be incorporated into the TDM plan.<br>TDM Requirements for Non-Residential Uses:<br>• The Project Applicant shall consult with the local transit service provider to maintain and identify opportunities to maximize transit. Evidence of compliance with this requirement may include correspondence from the local transit provider(s) regarding the potential need for installing bus shelters or bus stops at the site.<br>• The portion of the TDM plan for non-residential uses shall include, but not be limited to the following potential measures: ride-matching assistance, preferential carpool parking, flexible work schedules for carpools, half-time transportation coordinators, providing a web site or message board for coordinating rides, designating adequate | Prior to the issuance of building permits | City of Santa Ana Planning Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| passenger loading and unloading and waiting areas for ride-sharing vehicles, and including bicycle end of trip facilities (such as bicycle parking and changing/shower facilities). This list may be updated as new methods become available. Verification of this measure shall occur prior to building permit issuance for the commercial uses.<br><br>TDM Requirements for Residential Units:<br><br>• Rental Units. Upon a residential dwelling being rented or offered for rent, the Project Applicant shall notify and offer to the tenant or prospective tenant, materials describing public transit, ridesharing, and nonmotorized commuting opportunities in the vicinity of the development. The materials shall be approved by the City of Santa Ana. The materials shall be provided no later than the time the rental agreement is executed. This information shall be submitted to the City of Santa Ana Planning Division for review and approval, prior to the issuance of the first certificate of occupancy. | | | |
| **Mitigation Measure AQ-4: Prohibition of Fireplaces.** Project plans, specifications, and permitting shall state that wood-burning and natural gas devices are prohibited inside residential dwelling units. The purpose of this measure is to limit emissions of ROG, $NO_x$, and particulate matter emissions from wood-burning and natural gas devices used for primary heat, supplemental heat, or ambiance. This prohibition shall be noted on the tenant deed and/or lease agreements to ensure that installation of wood-burning and natural gas devices do not occur during occupation of residences. | Prior to issuance of building permits | City of Santa Ana Building Safety Division | |
| **Mitigation Measure AQ-5: Electric Landscape Equipment.** Prior to the issuance of occupancy permits, the Planning Division shall confirm that the proposed Project's Codes Covenants and Restrictions (CC&Rs) and/or tenant lease agreements include contractual language that all landscaping equipment used on site shall be 100 percent electrically powered. All residential and non-residential properties shall be equipped with exterior electrical outlets to accommodate this requirement. This requirement shall be included in the third-party vendor agreements for landscape services for the building owner and tenants, as applicable. | Prior to the issuance of certificates of occupancy. | City of Santa Ana Building Safety Division | |

| Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval | Timing | Responsible for Ensuring Compliance / Verification | Date Completed and Initials |
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| **Mitigation Measure AQ-6: Low VOC Paint (Operations).** The Project Applicant shall require by contract specifications for commercial development to use interior and exterior architectural coatings (paint and primer including parking lot paint) products that have a volatile organic compound rating of 10 grams per liter or less. Contract specifications shall be reviewed and approved by the City of Santa Ana prior to the issuance of occupancy permits. This measure shall be made a condition of approval for continued upkeep of the property. | Prior to issuance of certificates of occupancy. | City of Santa Ana Building Safety Division | |
| **Mitigation Measure AQ-7: Loading Dock Connections.** Prior to the approval of building permits, the City of Santa Ana shall confirm the construction documents demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. | Prior to issuance of building permits. | City of Santa Ana Building Safety Division | |
| **CULTURAL RESOURCES** | | | |
| **GPU FEIR Mitigation Measure CUL-1: Identification of Historical Resources and Potential Project Impacts.** For structures 45 years or older, a Historical Resources Assessment (HRA) shall be prepared by an architectural historian or historian meeting the Secretary of the Interior's Professional Qualification Standards. The HRA shall include: definition of a study area or area of potential effect, which will encompass the affected property and may include surrounding properties or historic district(s); an intensive level survey of the study area to identify and evaluate under federal, State, and local criteria significance historical resources that might be directly or indirectly affected by the proposed project; and an assessment of project impacts. The HRA shall satisfy federal and state guidelines for the identification, evaluation, and recordation of historical resources. An HRA is not required if an existing historic resources survey and evaluation of the property is available; however, if the existing survey and evaluation is more than five years old, it shall be updated. | Prior to issuance of grading permits. If the existing survey and evaluation is more than five years old, it shall be updated. | City of Santa Ana Building Safety Division | |
| **GPU FEIR Mitigation Measures CUL-4:** For projects with ground disturbance—e.g., grading, excavation, trenching, boring, or demolition that extend below the current grade—prior to issuance of any permits required to conduct ground-disturbing activities, the City shall require an | Prior to issuance of permits required to conduct ground-disturbing activities | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| Archaeological Resources Assessment be conducted under the supervision of an archaeologist that meets the Secretary of the Interior's Professionally Qualified Standards in either prehistoric or historic archaeology.<br><br>Assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and of the Sacred Land Files maintained by the Native American Heritage Commission. The records searches will determine if the proposed project area has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. If unpaved surfaces are present within the project area, and the entire project area has not been previously surveyed within the past 10 years, a Phase I pedestrian survey shall be undertaken in proposed project areas to locate any surface cultural materials that may be present. | | | |
| **GPU FEIR Mitigation Measures CUL-6:** If the archaeological assessment did not identify archaeological resources but found the area to be highly sensitive for archaeological resources, a qualified archaeologist and a Native American monitor approved by a California Native American Tribe identified by the Native American Heritage Commission as culturally affiliated with the project area shall monitor all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil of high sensitivity. The archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial onsite safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. The Native American monitor shall be invited to participate in this training. In the event that archaeological resources (artifacts or features) are exposed during ground- disturbing activities, construction activities in the immediate vicinity of the discovery shall be halted while the resources are evaluated for significance by an archaeologist who meets the Secretary's Standards. and This will include tribal consultation and coordination with the Native American monitor in the case of a prehistoric archaeological resource or tribal resource. | Prior to issuance of grading permits<br><br>Monitoring during ground-disturbing activities | City of Santa Ana Building Safety Division | |

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| If the discovery proves to be significant, the long-term disposition of any collected materials should be determined in consultation with the affiliated tribe(s), where relevant; this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe. | | | |
| **Mitigation Measure CR-1:** If a resource is determined significant, the Project Applicant, qualified archaeologist, and tribal monitors (as included in MM TCR-1) Native American tribal representative shall meet and confer regarding the treatment measures and mitigation for such resources. Pursuant to PRC Section 21083.2(b), avoidance is the preferred method of preservation for archaeological resources and may include deeding archaeological resources into permanent conservation easements or planning parks, greenspace, or other open space to incorporate archaeological resources. If preservation in place or avoidance is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis of the artifacts that are recovered. The methods and results of the data recovery excavations shall be included in the monitoring report that is described in MM CR-2. The report shall include a description of resources recovered, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. Construction activities in the immediate vicinity of the discovery can resume once the fieldwork component of the treatment measures has been implemented. These treatment measures and mitigation shall reduce any significant impacts by ensuring that either the resource is preserved in place or is removed prior to its destruction by construction activities. | Prior to initiation of grading/ground-disturbing activities | City of Santa Ana Building Safety Division | |
| **Mitigation Measure CR-2:** After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of monitoring activities, which shall be submitted to the City and to the SCCIC at the University California, Fullerton. | After completion of monitoring activities. | City of Santa Ana Building Safety Division | |

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| **GEOLOGY AND SOILS** | | | |
| **Plan, Program, or Policy PPP GEO-1: CBC Compliance.** The proposed Project is required to comply with the California Building Standards Code (CBC) as included in the City's Municipal Code as Chapter 8, Article 2, Division 1, to preclude significant adverse effects associated with seismic and soils hazards. As part of CBC compliance, CBC related and geologist and/or civil engineer specifications for the proposed Project shall be incorporated into grading plans and building specifications as a condition of construction permit approval. | Prior to issuance of grading and building permits | City of Santa Ana Building Safety Division | |
| **GPU FEIR Mitigation Measures GEO-2: Low-to-High Sensitivity.** Prior to issuance of a grading permit for projects involving ground disturbance in previously undisturbed areas mapped with "low- to-high" paleontological sensitivity (see Figure 5.6-3), the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have high sensitivity, construction activity shall be monitored by a qualified paleontologist. The paleontologist shall have the authority to halt construction during construction activity as outlined in Mitigation Measure GEO-3. | Prior to issuance of grading permits; See MM GEO-3 | City of Santa Ana Building Safety Division | |
| **GPU FEIR Mitigation Measures GEO-3: All Projects.** In the event of any fossil discovery, regardless of depth or geologic formation, construction work shall halt within a 50-foot radius of the find until its significance can be determined by a Qualified Paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology (2010). The most likely repository is the Natural History Museum of Los Angeles County (NHMLA). The repository shall be identified, and a curatorial arrangement shall be signed, prior to collection of the fossils. | During all ground disturbing activities | City of Santa Ana Building Safety Division | |
| **Mitigation Measure GEO-1: Incorporation of and Compliance with a Design Level Geotechnical Report.** A final design level geotechnical report that complies with all applicable state and local code requirements shall be prepared for each Project structure by a California licensed qualified | Prior to issuance of grading permits | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| geotechnical engineer consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction and shall include recommendations related to site grading and earthwork, fill materials, compaction, foundations, and other structural elements. The report recommendations shall be included in construction specifications and permits; and confirmed through onsite inspections. | | | |
| **Mitigation Measure GEO-2: Implementation of Geotechnical Recommendations for Groundwater and Expansive Soils.** Project plans, grading specifications, and construction permitting shall incorporate site specific earthwork and ground improvement requirements related to groundwater saturated soils and expansive soils consistent with the California Building Code and City of Santa Ana requirements applicable at the time of grading/construction as stated in a design level geotechnical report and approved by the City's Building and Safety Division. This shall include recommendations related to discovery of groundwater, wet soils, or unstable soils during grading, stabilization, dewatering, fill materials, and foundations. | Prior to issuance of grading permits | City of Santa Ana Building Safety Division | |
| **Mitigation Measure PALEO-1: Retention of a Qualified Paleontologist.** Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavation, the client shall retain a Qualified Paleontologist who meets the professional criteria established by the Society of Vertebrate Paleontology (SVP 2010) to oversee the implementation of all paleontological resources mitigation requirements for the proposed Project. | In Prior to any grading permits | City of Santa Ana Building Safety Division | |
| **Mitigation Measure PALEO-2: Paleontological Resources Sensitivity Training**. Project plans, grading specifications, and construction permitting shall ensure that prior to the start of excavations, the Qualified Paleontologist, or their designee, shall conduct paleontological resources awareness training for onsite personnel. The training session shall focus on how to identify paleontological resources that may be encountered during excavations and the procedures to be followed in the event of their discovery. The City shall ensure onsite personnel are made available for and attend the training and retain documentation demonstrating attendance. | Inclusion in Project plans, grading specifications, and construction permitting prior to issuance of grading permits<br>Prior to initiation of grading/ground-disturbing activities. | City of Santa Ana Building Safety Division | |

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| **Mitigation Measure PALEO-3: Paleontological Monitoring.** Project plans, grading specifications, and construction permitting shall detail that paleontological resources monitoring shall be required for excavations below 20 feet below ground surface (bgs). Paleontological monitoring shall be conducted by a monitor who meets the professional criteria established by the Society of Vertebrate Paleontology working under the direct supervision of the Qualified Paleontologist. Monitoring can be reduced, or ceased entirely, if determined adequate by the Qualified Paleontologist.<br><br>Recommendations for reduction or cessation of monitoring will be based on a more accurate understanding of the lithologic character and age of the sediments exposed during excavation. If deeper excavations continue to encounter younger, Holocene alluvium, monitoring shall be reduced from full-time to part-time monitoring or weekly inspections. If the Qualified Paleontologist determines, based on the lithologic character of the sediments, that there is very little likelihood of impacting Pleistocene marine sediments, paleontological monitoring shall cease entirely.<br><br>The paleontological monitor shall collect any identifiable fossils encountered during the excavations. If onsite personnel discover potential fossils during excavations when a paleontological monitor is not present, they shall cease excavation within 50 feet of the discovery and contact the Qualified Paleontologist. Construction activities may resume after the discovery is assessed by the Qualified Paleontologist and appropriate treatment measures have been implemented. | Prior to issuance of grading permits<br><br>During ground-disturbing activities at 20 feet bgs. | City of Santa Ana Building Safety Division | |
| **Mitigation Measure PALEO-4: Paleontological Resources Treatment and Disposition.** Project plans, grading specifications, and construction permitting shall require that significant fossils be prepared to the point of identification and cataloged. Significant fossils shall be curated at a public, non-profit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, then the fossils may be donated to a local museum, historical society, school, or other institution for educational purposes. Accompanying notes, reports, maps, and photographs shall also be filed with the final repository. | Inclusion in Project plans, grading specifications, and construction permitting prior to issuance of grading permits<br><br>Upon completion of monitoring | City of Santa Ana Building Safety Division | |

| Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval | Timing | Responsible for Ensuring Compliance / Verification | Date Completed and Initials |
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| **Mitigation Measure PALEO-5: Paleontological Resources Monitoring Report.** Project plans, grading specifications, and construction permitting shall ensure that upon completion of the excavation phase of the Project, the Qualified Paleontologist shall prepare a report summarizing the results of the monitoring efforts. The report shall be submitted to the City to signify the satisfactory completion of required paleontological mitigation measures. If significant fossils are discovered, the report shall also be submitted to the appropriate repositories. | Inclusion in Project plans, grading specifications, and construction permitting prior to issuance of grading permits<br>Upon completion of monitoring | City of Santa Ana Building Safety Division | |
| **GREENHOUSE GAS EMISSIONS** | | | |
| **Mitigation Measure GHG-1: Solar Panels**. The Project shall be required to install solar photovoltaic (PV) panels or other source of renewable electricity generation on-site, based on the maximum roof area available for solar (i.e., solar-ready zone). The solar-ready zone shall comply with Section 110.10 of the 2022 California Energy Code and shall comply with access, pathway, ventilation, and spacing requirements, and exclude skylight area.<br>The final PV generation facility size requires approval by Southern California Edison (SCE). SCE's Rule 21 governs operating and metering requirements for any facility connected to SCE's distribution system. Should SCE limit the offsite export, the proposed Project may utilize a battery energy storage system (BESS) to lower offsite export while maintaining onsite renewable generation to off-set consumption. The electrical system and infrastructure must be clearly labeled with noticeable and permanent signage. The schedule of photovoltaic system locations may be updated as needed. | Shown on building plans<br>Prior to certificates of occupancy, as applicable | City of Santa Ana Building Safety Division | |
| **Mitigation Measure GHG-2: LEED, Charging Stations, and Bus Stops**. Prior to the issuance of a Phase 1, Phase 2, or Phase 3 building permits, the Project Applicant or successor in interest shall provide documentation to the City of Santa Ana demonstrating the following:<br>• The Project shall be designed to achieve Leadership in Energy and Environmental Design (LEED) certification to meet or exceed CALGreen Tier 2 standards in effect at the time of building permit application in order to exceed 2022 Title 24 energy efficiency standards. | Prior to issuance of building permits | City of Santa Ana Building Safety Division | |

| **Standard Condition/ Plan, Program, Policy / Mitigation Measure/ Condition of Approval** | **Timing** | **Responsible for Ensuring Compliance / Verification** | **Date Completed and Initials** |
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| • The Project shall provide facilities to support electric charging stations per the Tier 2 standards in Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of the 2022 CALGreen Code.<br><br>The Applicant shall coordinate with the City of Santa Ana and Orange County Transit Authority to ensure that bus pad and shelter improvements are incorporated, as appropriate. | | | |
| **Mitigation Measure GHG-3: Landfill Waste.** The development (Phase 1, Phase 2, and Phase 3) shall divert a minimum of 75 percent of landfill waste. Prior to issuance of certificate of occupancy, a recyclables collection and load area shall be constructed in compliance with the City standards for Recyclable Collection and Loading Areas. | During construction<br><br>Prior to issuance of certificates of occupancy. | City of Santa Ana Building Safety Division | |
| **Mitigation Measure GHG-4: Electrical Landscape Equipment.** Prior to the issuance of Phase 1, Phase 2, or Phase 3 occupancy permits, the City Planning and Building and Safety Divisions shall confirm that tenant lease agreements include contractual language that all landscaping equipment used on site shall be 100 percent electrically powered. This requirement shall be included in the third-party vendor agreements for landscape services for the building owner and tenants, as applicable. | Prior to issuance of certificates of occupancy. | City of Santa Ana Building Safety Division | |
| **Mitigation Measure GHG-5: Energy Efficient Appliances**. All major applicant provided in-unit residential appliances (e.g., dishwashers, refrigerators, clothes washers and dryers, water heaters, and for space heating) provided/installed shall be electric (i.e., appliances that do not use natural gas, propane, or other fossil fuels) and Energy Star certified or of equivalent energy efficiency where applicable. Prior to the issuance of the certificate of occupancy, the City of Santa Ana shall verify implementation of this requirement. Installation of electric Energy Star–certified or equivalent appliances shall be verified by the Building Safety Division during plan check. | Prior to issuance of certificates of occupancy. | City of Santa Ana Building Safety Division | |

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| **HAZARDS AND HAZARDOUS MATERIALS** | | | |
| **Plan, Program, or Policy PPP HAZ-1: SCAQMD Rule 1403.** Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that an asbestos survey has been conducted at all existing buildings located on the Project site. If asbestos or asbestos containing material is found, the Project applicant shall follow all procedural requirements and regulations of the South Coast Air Quality Management District (SCAQMD) Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal. | Prior to issuance of demolition permits | City of Santa Ana Building Safety Division | |
| **Plan, Program, or Policy PPP HAZ-1: Lead.** Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building and Safety Division that a lead-based paint survey has been conducted at all existing buildings located on the Project site. If lead-based paint is found, the Project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. CalOSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead. | Prior to issuance of demolition permits | City of Santa Ana Building Safety Division | |
| **Mitigation Measure HAZ-1:** Prior to issuance of a grading permit, a Soil Management Plan (SMP) shall be prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for excavation and disposal of onsite hazardous materials, including:<br>• Any subsurface materials exposed during construction activities that appear potentially contaminated, based on either visual observation or suspect odors, shall be segregated, stockpiled, and tested for potential contamination. If contamination is found to be present per the California Department of Toxic Substances Control (DTSC) Environmental Screening Levels (ESLs) for the applicable use, and cannot be reused on the Project site, it shall be transported by a | Prior to grading permits | City of Santa Ana Building Safety Division | |

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| certified hazardous waste hauler to a landfill permitted by the state to accept hazardous materials and disposed of per California Hazardous Waste Regulations.<br>• A Health and Safety Plan (HASP) shall be prepared for each contractor that addresses potential safety and health hazards and includes the requirements and procedures for employee protection. The HASP shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.<br>• All SMP measures shall be printed on the construction documents, contracts, and project plans prior to issuance of grading permits. | | | |
| **Mitigation Measure HAZ-2:** Prior to issuance of a building permit for a future building within the Specific Plan area, the Project applicant shall, at its election, undertake one of the following three activities: (1) perform a subsurface soil vapor assessment demonstrating that vapor concentrations are within established limits for vapor intrusion into future buildings; (2) prepare a human health risk assessment (HHRA) demonstrating that documented levels of soil vapor do not represent a significant health risk to occupants of the future buildings; or (3) submit plans for a vapor intrusion mitigation system (VIMS) to be installed beneath the foundation of the future buildings. The Project applicant may rely on different measures of the foregoing options in different parts of the Specific Plan area. | Prior to issuance of a building permit | City of Santa Ana Building Safety Division | |
| **HYDROLOGY AND WATER QUALITY** | | | |
| **Plan, Program, or Policy PPP WQ-1: NPDES/SWPPP.** Prior to issuance of any grading or demolition permits, the applicant shall provide the City Building and Safety Division evidence of compliance with the NPDES (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of one acre or larger. The Project applicant/proponent shall comply by submitting a Notice of Intent (NOI) and by developing and implementing a Stormwater Pollution | Prior to issuance of a demolition or grading permits | City of Santa Ana Building Safety Division | |

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| Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site. | | | |
| **Plan, Program, or Policy PPP WQ-2: Groundwater Dewatering Permits.** Prior to initiation of excavation activities, the Project applicant shall obtain coverage under the Santa Ana RWQCB General Waste Discharge Requirements for Discharges to Surface Waters Resulting from De Minimis Discharges or Groundwater Dewatering Operations, and/or Groundwater Cleanup/ Remediation Operations at Sites within the Newport Bay Watershed Permit (Order No. R8-2019-0061, NPDES No. CAG918002), or any other subsequent permit for dewatering activities, and provide evidence of coverage to the City of Santa Ana Building and Safety Division designee. This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Santa Ana Regional Water Quality Control Board (RWQCB) at least 60 days prior to the start of excavation activities and anticipated discharge of dewatered groundwater to surface waters. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB. | Prior to issuance of a grading permit | City of Santa Ana Building Safety Division | |
| **Plan, Program, or Policy PPP WQ-3: WQMP.** Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the City Building and Safety Division. The WQMP shall identify all Post-Construction, Site Design. Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development project in order to minimize the adverse effects on receiving waters. | Prior to issuance of a grading permit | City of Santa Ana Building Safety Division | |

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| **NOISE** | | | |
| **GPU FEIR Mitigation Measure N-1:** Construction contractors shall implement the following measures for construction activities conducted in the City of Santa Ana. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans submitted to the City: The City of Santa Ana Planning and Building Agency shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading and/or building permits.<br>• Construction activity is limited to the hours: Between 7:00 a.m. to 8:00 p.m. Monday through Saturday, as prescribed in Municipal Code Section 18-314(e). Construction is prohibited on Sundays.<br>• During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment re-design, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.<br>• Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.<br>• Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.<br>• Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.<br>• Construction traffic shall be limited to approved haul routes established by the City Public Works Agency. Exceptions to approved routes must be granted by the Public Works Agency before any modification to approved haul routes. | Prior to issuance of demolition, grading, and/or building permits<br>During demolition, grading/excavation, and construction activities | City of Santa Ana Building Safety Division | |

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| • At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.<br>• Signs shall be posted at the job site entrance(s), within the onsite construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.<br>• During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.<br>• Erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. | | | |
| **GPU FEIR Mitigation Measure N-4:** During the project-level California Environmental Quality Act (CEQA) process for industrial developments under the General Plan Update or other projects that could generate substantial vibration levels near sensitive uses, a noise and vibration analysis shall be conducted to assess and mitigate potential noise and vibration impacts related to the operations of that individual development. This noise and vibration | Prior to issuance of grading and/or building permits | City of Santa Ana Building Safety Division | |

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| analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents. | | | |
| **Mitigation Measure NOI-1:** Prior to the issuance of construction/grading permits, the Project Applicant shall obtain a permit from the City's Building Safety Division to complete work outside the standard construction hours outlined in Santa Ana Municipal Code Section 18-314(e). In addition, the Project Applicant and/or contractor(s) shall develop a nighttime construction noise control plan that requires the following:<br><br>Stationary equipment such as generators and air compressors shall adhere to the following:<br><br>• Stationary equipment (e.g., generators, air compressors, etc.) shall be located 300 feet or more away from residences.<br><br>• Stationary equipment shall be surrounded with noise barriers to achieve a minimum 10 dBA reduction. Alternatively, a temporary noise barrier may be used along the property line.<br><br>Mobile equipment such as concrete mixer trucks, pump trucks shall adhere to the following:<br><br>• The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to offsite sensitive receptors:<br><br>▪ **Phase 1**: Trucks and equipment shall be 140 feet or more away from the Versailles residences along Plaza Drive.<br><br>▪ **Phase 2**: No minimum distance required (Phase 2 is 410 feet from sensitive receptors and would not exceed thresholds).<br><br>▪ **Phase 3**: Trucks and equipment shall be 150 feet or more away from the Versailles residences along Plaza Drive. | Prior to issuance of grading and/or construction permits | City of Santa Ana Building Safety Division | |

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| • The nighttime noise control plan shall prohibit mobile equipment and trucks from operating within the following distances to onsite sensitive receptors:<br>▪ **Phase 1**: No minimum distance is required because no onsite receptors would be constructed prior to Phase 1.<br>▪ **Phase 2:** Trucks and equipment shall be 150 feet or more away from Phase 1 onsite residences.<br>▪ **Phase 3:** Trucks and equipment shall be 170 feet or more away from Phase 1 and Phase 2 onsite residences. | | | |
| **Condition of Approval N-1: Onsite Traffic Noise.** Prior to issuance of building permits for Phase 1, Phase 2, and Phase 3, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant to demonstrate compliance with General Plan Noise Element Standards. The acoustical study shall be submitted to the City's Planning and Building Agency to demonstrate that all residential units would meet the City's 65 dBA exterior noise standard and 45 dBA interior noise standard to the satisfaction of the Planning and Building Agency Executive Director. This complies with the applicable sections of the California Building Code (Title 24 of the California Code of Regulations). The necessary noise reductions may be achieved by implementing noise control measures at the receiver locations. The required noise attenuation measures shall be incorporated into the applicable building plans and specifications. | Prior to issuance of building permits | City of Santa Ana Planning and Building Agency | |
| **TRIBAL CULTURAL RESOURCES** | | | |
| **Mitigation Measure TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities.**<br>A. The Project Applicant shall retain a Native American monitor from or approved by the Gabrieleño Band of Mission Indians-Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject Project at any Project locations (i.e., both onsite and any offsite locations that are included in the Project description/ definition and/or required in connection with the proposed | Prior to issuance of permits associated with ground-disturbing activities<br>Monitoring during ground-disturbing activities | City of Santa Ana Planning and Building Safety divisions | |

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| Project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.<br><br>B. A copy of the executed monitoring agreement shall be submitted to the Lead Agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.<br><br>C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the Project Applicant upon written request to the Tribe.<br><br>D. Onsite tribal monitoring shall conclude upon the earlier of the following (1) written confirmation to the Kizh from a designated point of contact for the Project Applicant or lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the Project Applicant or Lead Agency that no future, planned construction activity and/or development/construction phase at the Project site possesses the potential to impact Kizh TCRs. | | | |
| **Mitigation Measure TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)**<br><br>A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 | During ground disturbing activities | City of Santa Ana Planning and Building Safety divisions | |

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| feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor in consultation with a qualified archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes. | | | |
| **Mitigation Measure TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects**<br>A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.<br>B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.<br>C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).<br>D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.<br>E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance. | In construction plans and Specifications.<br>During all ground disturbing activities | City of Santa Ana Planning and Building Safety divisions | |

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