Michael Baker INTERNATIONAL

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# MEMORANDUM

**To:** Jonathan Kwan, City of Norwalk

**From:** Kristen Bogue, Michael Baker International

**Date:** September 25, 2024

**Subject:** City of Norwalk, Norwalk Transit Village Final EIR – Responses to Comment RE: City of Norwalk's Transit Village Project, Special Planning Commission Agenda Item No. 1 (SCH# 2022070103)

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Michael Baker International (Michael Baker), on behalf of the City of Norwalk (City), is writing to provide responses to comment letter *RE: City of Norwalk's Transit Village Project, Special Planning Commission Agenda Item No. 1 (SCH# 2022070103)*, prepared by Mitchell M. Tsai Law Firm, dated July 9, 2024, regarding the *Norwalk Transit Village Final Environmental Impact Report* (Final EIR) prepared for the proposed Norwalk Transit Village Project (project). Individual comments within the comment letter have been bracketed and numbered so comments can be cross-referenced with the corresponding responses; refer to Attachment A. It is acknowledged that many of these comments/concerns were similarly raised by the commenter in prior comments as part of the public review period of the EIR. As such, applicable responses provided in the Final EIR have been referenced and/or reiterated here for clarification.

1 This comment summarizes the proposed project description and introduces the Western States Regional Council of Carpenters (Western Carpenters) and notes that members of the Western Carpenters live and work in the City and surrounding communities. The comment states that the commenter reserves the right to supplement these comments at or before hearings on the project, incorporates by reference all comments regarding the Draft EIR, and requests notification of all future notices issued under CEQA regarding the project. The commenter's comments on the Draft EIR were provided and responded to in the Final EIR (see Final EIR Section 2.0, *Response to Comments*, Comment Letter No. O3 and Response to Comment Letter No. O3).

2 The comment requests the City require the project to utilize local workers meeting certain apprenticeship requirements to build the proposed development. This comment is the same as prior comments submitted by the commenter on the Draft EIR and addressed in the Final EIR. As such, please refer to Final EIR Section 2.0, Response to Comment O3-2.

3 The comment repeats the commenter's prior comments submitted on the Draft EIR and responded to in the Final EIR regarding the COVID-19 pandemic and construction activities. As such, refer to Final EIR Section 2.0, Response to Comment O3-3.

4 The comment discusses CEQA requirements generally related to recirculation and suggests that the Final EIR for the project should be recirculated because the GHG mitigation measures were changed to require Tier 1 instead of the previously proposed Tier 2 Green Building Code requirements. As

explained by Director of Community Development Hamilton at the Planning Commission hearing on July 10, 2024, the change in some of the GHG mitigation measures from Tier 2 to Tier 1 in the Final EIR does not change the analysis or the EIR's impact conclusions, and the Final EIR also included additional mitigation measures that would further reduce GHG emissions. Further, none of the corrections or clarifications to the Draft EIR identified in the Final EIR, including the changes to the GHG mitigation measures, constitute "significant new information" pursuant to the CEQA Guidelines, and recirculation is not required.

Mitigation Measures GHG-1 and GHG-2 were revised in the Final EIR to clarify the applicability to residential and non-residential development, and to require Tier 1 measures rather than Tier 2 as noted in the comment. Given the relatively small amount of commercial space and associated parking proposed under the Specific Plan and the fact that specific commercial tenants and uses are not known at this time, the Tier 2 levels of the voluntary measures under CalGreen to reduce GHG emissions during operation would result in disproportionate constraints on the project and viability of potential uses for a small and unquantifiable benefit. As explained in the EIR (including in responses to the commenter's comments), the majority of the emissions associated with the project come from mobile sources during operation, and it is not feasible to reduce such emissions below SCAQMD's interim screening threshold. However, in addition to the GHG mitigation measures, the project is an infill, mixed-use, transit-oriented development that by its nature is designed to reduce GHG emissions. Further, Mitigation Measures GHG-3 and GHG-4 were added to the Final EIR, which require exterior electric receptacles for charging and powering electric landscaping equipment, and light color roofing and building materials to minimize heat-island effect. As such, the overall GHG emission reductions from Final EIR mitigation measures stay at the same level or above that considered in the Draft EIR, and the significant and unavoidable GHG emissions impact conclusion presented in the Draft EIR does not change. As stated in Section 15088.5(a) of the CEQA Guidelines: "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." Here, the EIR's conclusions have not changed, feasible mitigation measures have been included to address the project's environmental effects, and the public has been provided with meaningful opportunity to comment. The changes referenced in the comment do not constitute significant new information under CEQA, and recirculation of the Final EIR is not required.

5 The comment is conclusory in nature and summarizes the commenter's previous comments, which are addressed above. As explained in the responses above and in responses to the commenter's prior comments, the Draft EIR adequately analyzed the proposed project and evaluated and disclosed the potential environmental impacts associated with the proposed project, consistent with the requirements of CEQA. None of the circumstances requiring recirculation of a draft EIR set forth in CEQA Guidelines Section 15088.5 have been met. No new significant impacts or substantial increases in already identified significant impacts have been identified.

6 This comment lists the exhibits provided as attachments to the comment letter. The same attachments were included with the commenter's comments on the Draft EIR and provided in the Final EIR (refer to Final EIR Section 2.0, Response to Comment O3-9).

# ATTACHMENT A

P: (626) 314-3821
F: (626) 389-5414
E: info@mitchtsailaw.com

**Mitchell M. Tsai**
Law Firm

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

**VIA E-MAIL**

July 9, 2024

Community Development Department
City Council Chambers
Norwalk City Hall
12700 Norwalk Blvd
Norwalk, CA 90650
planning@norwalkca.gov
jkwan@norwalkca.gov

**RE: City of Norwalk's Transit Village Project, Special Planning Commission Agenda Item No. 1 (SCH# 2022070103).**

Dear Commissioners,

On behalf of the Western States Regional Council of Carpenters ("**Western Carpenters**" or "**WSRCC**"), my Office is submitting these comments on the Final Environmental Impact Report ("FEIR") prepared for the Norwalk Transit Village Project, which will be discussed at the July 10, 2024 Special Planning Commission meeting.

The Western Carpenters is a labor union representing almost 90,000 union carpenters in 12 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. 1

The proposed Norwalk Transit Village (project) site is an approximately 32.3-acre area located at 13200 Bloomfield Avenue (Assessor's Parcel Number [APN] 8045-008-902), in the City of Norwalk, in the southeastern portion of Los Angeles County. The project proposes the Norwalk Transit Village Specific Plan (Specific Plan) and Tentative Tract Map to allow the demolition of the former California Youth Authority (CYA) facility on site, and construction of a mixed-use transit-oriented

community featuring market rate and affordable high-density housing, both rental and for-sale, an approximately 150-key hotel, commercial uses (e.g., restaurants), and open spaces (e.g., parks, trails). The project would include landscape improvements and would install utility infrastructure and public services.

Individual members of WSRCC live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

The Western States Regional Council of 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 Western 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). 1 cont'd

Moreover, the Western Carpenters requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

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

2

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:

> [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.

2 cont'd

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:

> [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,

[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.

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]

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 other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that: 2 cont'd

> 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

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

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.

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. 2 cont'd

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] 3

Western Carpenters recommend that the Lead Agency adopt additional requirements to mitigate public health risks from the Project's construction activities. WSRCC requests that the Lead Agency 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 Western Carpenters' experience with safe construction site work practices, WSRCC recommends that the Lead Agency require that while construction activities are being conducted at the Project Site:

[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.

**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.

3 cont'd

**Testing Procedures:**

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

3 cont'd

**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.

Western 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]

3 cont'd

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 AND RECIRCULATE THE PROJECT'S FEIR

Section 21092.1 of the California Public Resources Code requires that "[w]hen significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 … but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report" in order

4

[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 Western Carpenters' ICRA training program, *see* https://icrahealthcare.com/.

to give the public a chance to review and comment upon the information. (CEQA Guidelines § 15088.5.)

Significant new information includes "changes in the project or environmental setting as well as additional data or other information" that "deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative)." (CEQA Guidelines § 15088.5(a).) Examples of significant new information requiring recirculation include "new significant environmental impacts from the project or from a new mitigation measure," "substantial increase in the severity of an environmental impact," "feasible project alternative or mitigation measure considerably different from others previously analyzed" as well as when "the draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (*Id.*)

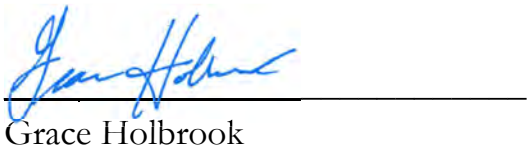
An agency has an obligation to recirculate an environmental impact report for public notice and comment due to "significant new information" regardless of whether the agency opts to include it in a project's environmental impact report. (*Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 95 [finding that in light of a new expert report disclosing potentially significant impacts to groundwater supply "the EIR should have been revised and recirculated for purposes of informing the public and governmental agencies of the volume of groundwater at risk and to allow the public and governmental agencies to respond to such information."].) If significant new information was brought to the attention of an agency prior to certification, an agency is required to revise and recirculate that information as part of the environmental impact report. 4 cont'd

Here, the FEIR is legally flawed in because it fails to substantiate or explain the changes to multiple mitigation measures for the Project. More specifically, the GHG mitigation measures have been weakened by requiring Tier 1 instead of the previously proposed Tier 2 Green Building Code requirements. (See Errata 3-2–3-3). No reasoning is provided for the reduced measures. These changes must be justified considering the Project's GHG impacts remain significant and unavoidable. As such, the FEIR must be revised and recirculated to account for this change and to allow for meaningful public review and comment.

## IV. **CONCLUSION**

The WSRCC request 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. WSRCC further requests that the City revise and recirculate the FEIR to address the critical concerns about the Project's unsubstantiated significant changes to the Project's GHG emissions mitigation measures. If the City has any questions, feel free to contact my Office. 5

Sincerely,



Grace Holbrook
Attorneys for Western States 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). 6

**EXHIBIT A**

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

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

**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.

## 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]

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]

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

[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.

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** |

[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.

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.

## 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).

| **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.

## 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.

Sincerely,

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

Paul E. Rosenfeld, Ph.D.

| 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** |

# 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 | 1,721.6826 | 1,721.6826 | 0.1294 | 0.0000 | 1,724.9187 |
| 2023 | 0.6148 | 3.3649 | 5.6747 | 0.0178 | 1.1963 | 0.0996 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.5295 | 1,627.5295 | 0.1185 | 0.0000 | 1,630.4925 |
| 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** | **1,721.6826** | **1,721.6826** | **0.1294** | **0.0000** | **1,724.9187** |

## 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 | 1,721.6823 | 1,721.6823 | 0.1294 | 0.0000 | 1,724.9183 |
| 2023 | 0.6148 | 3.3648 | 5.6747 | 0.0178 | 1.1963 | 0.0996 | 1.2959 | 0.3203 | 0.0935 | 0.4138 | 0.0000 | 1,627.5291 | 1,627.5291 | 0.1185 | 0.0000 | 1,630.4921 |
| 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** | **1,721.6823** | **1,721.6823** | **0.1294** | **0.0000** | **1,724.9183** |

| | ROG | NOx | 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**

| 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 | 8.5100e-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 | 8.5100e-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** | **1,408.7952** | **1,408.7952** | **0.0530** | **0.0000** | **1,410.1208** |

### 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** | **1,408.7952** | **1,408.7952** | **0.0530** | **0.0000** | **1,410.1208** |

## 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

| | 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, Annual

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 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 | 92.9036 | 92.9036 | 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 | 92.9036 | 92.9036 | 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 | 3.94697e+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 | 3.94697e+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** |

## 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 | 204.1166 | 204.1166 | 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 | 205.3295 |
| 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** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

| | 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 | 6,283.5352 |
| 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 | 9.5575 | 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 | 6,283.5352 |
| 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 | 9.5575 | 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**

| 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