Appendix A

Comments Received on the Draft EIR

ESA

LOZEAU DRURY LLP

T 510.836.4200
F 510.836.4205

1939 Harrison Street, Ste. 150
Oakland, CA 94612

www.lozeaudrury.com
richard@lozeaudrury.com

VIA EMAIL

December 8, 2020

Matt Chang, Senior Planner
Community Development Department
Planning Division
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776
mchang@sgch.org

Samantha Tewasart, Planning Manager
Community Development Department
Planning Division
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776
stewasart@sgch.org

Arminé Chaparyan, Director
Community Development Department
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776
achaparyan@sgch.org

Julie Nguyen, City Clerk
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776
cityclerk@sgch.org

Re: Comment on Draft Environmental Impact Report for Pacific Square San Gabriel Mixed-Use Project (SCH 2018081085)

Dear Mr. Chang, Ms. Tewasart, Ms. Chaparyan, and Ms. Nguyen,

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Draft Environmental Impact Report ("DEIR") prepared for the project known as Pacific Square San Gabriel Mixed-Use Project (SCH 2018081085), including all actions related or referring to the proposed development of an approximately 495,544 square-foot mixed-use development in two plazas (102 residential units, 4 live/work units, and 36,352 square feet of ground floor commercial space in the 700 Plaza; 141 residential units, 4 live/work units, and 39,694 square feet of ground floor commercial space in the 800 Plaza), a 33,543 square-foot central park area, and parking in two 3-level concrete parking garages, located at 700-800 South San Gabriel Boulevard in San Gabriel ("Project"). 1-1

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. SAFER requests that the Community Development Department address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. We reserve the right to supplement 1-2

these comments during review of the Final EIR for the Project and at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997). 1-2

Sincerely,

Richard Drury

From: Gabrieleno Chairman <chairman@gabrielenoindians.org>
Sent: Monday, December 14, 2020 4:23 PM
To: Matt Chang <mchang@SGCH.ORG>
Cc: Administration Gabrieleno Indians <admin@gabrielenoindians.org>; Administration KNRM <admin@knrm-nsn.us>; Kara Grant <kara@grant-law.net>; Matthew Teutimez <Matthew.Teutimez@gabrielenoindians.org>
Subject: Pacific square San Gabriel mixed-use- use Project 700 - 800 South San Gabriel Boulevard San Gabriel, CA 91776

Dear Matt Chang,
We are contacting you regarding the attached document regarding the above project location . The reason we are contacting you is because we have concerns with the following language down below that has been implemented into the draft EIR. To protect our tribal cultural resources we recommend you utilize the following mitigation measures for the compliance of CEQA . If you have any questions please contact us . Thank you

" based on analysis included in the draft EIR, the project would not result in any significant and unavoidable impacts and would not result in any cumulatively considerable impacts".

2-1

MM TCR-1 *Prior to the commencement of any ground disturbing activity at the project site, the project applicant shall retain a Native American Monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill A52 - SB18 (the "Tribe" or the "Consulting Tribe"). A copy of the executed contract shall be submitted to the City of San Gabriel's Planning and Building Department prior to the issuance of any permit necessary to commence a ground-disturbing activity. The Tribal monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when all ground-disturbing activities on the Project Site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground-disturbing activities at the Project Site have little to nopotential for impacting Tribal Cultural Resources. Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less*

2-2

than the surrounding 100 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by project activities shall be evaluated by the qualified archaeologist and Tribal monitor approved by the Consulting Tribe. If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes. If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance shall immediately cease, and the county coroner shall be notified per Public Resources Code Section 5097.98, and Health & Safety Code Section 7050.5. Human remains and grave/burialgoods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Work may continue on other parts of the Project Site while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section 15064.5[f]). If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and PRC Sections 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. 2-2

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu

California Historical Resources Information System
Orange, Los Angeles, San Bernardino, and Ventura Counties

The California Historical Resources Information System (CHRIS) provides archaeological archival research for our clients who have projects throughout the state of California. Clients who use our services need to know if their project may have an effect on these types of cultural resources. We assist in answering this question, at least in part, through the record search process.

When we report that no archaeological resources are recorded in a project area or within a specified radius around a project area; that does not mean that there is no possibility of archaeological sites being present. Surface or buried artifacts may be found during a survey of the property or ground-disturbing activities.

In some cases, the area has not yet been studied and no information that might be used to assess the archaeological sensitivity of a project area is on file in the CHRIS. Project areas that contain structures, hardscape or pavement might never have been studied prior to development and may in effect be capping or preserving a buried archaeological resource. Unfortunately, if resources aren't discovered until after ground disturbance begins, the cultural, historical, or investigative value of that resource may be irreparably damaged.

Depending on the type of project, if no relevant information is on file in the CHRIS, we may recommend that a qualified archaeological consultant be retained to survey the property or to monitor any ground-disturbing activities. This is done so that a qualified consultant can make a more reliable determination about the potential archaeological sensitivity of a property.

Other entities outside of the CHRIS have information about cultural resources that is not a part of the CHRIS Inventory. This information may indicate the presence of or sensitivity regarding places of cultural importance and / or cultural resources not represented in the CHRIS Inventory. Under both federal and state law, consultation with Native American tribes may be required for a given project. The Native American Heritage Commission (NAHC) maintains the official state list of tribal contracts. Even when it is not a legal requirement, we recommend contacting the NAHC for a list of Native American tribal contacts who may have knowledge of tribal cultural resources and areas of sensitivity in the vicinity of a project. The NAHC also maintains information regarding cultural resources and areas of tribal sensitivity, and can facilitate dialogue with Native American tribes and individuals regarding these places.

Please remember. Just because there is nothing recorded in the CHRIS Inventory for a given location, doesn't mean that nothing is there.

Send

CITY OF SAN GABRIEL
NOTICE OF COMPLETION AND AVAILABILITY

To: Interested Agencies and Organizations

Subject: **Notice of Completion and Availability of a Draft Environmental Impact Report (EIR)**

Lead Agency:

Agency Name: City of San Gabriel
Address: 425 S. Mission Drive
City/State/Zip: San Gabriel, California 91776

Contact: Matt Chang
Phone: 626.308.2806 ext. 4625
Email: mchang@sgch.org

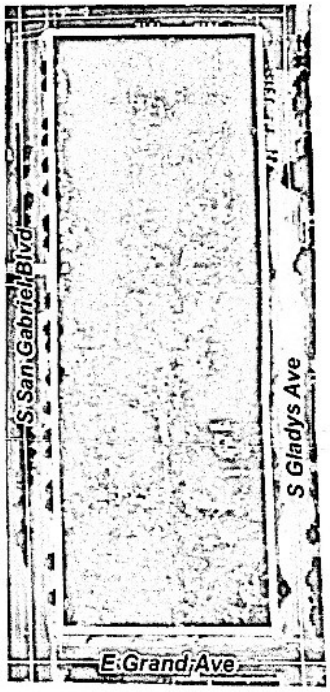
Consulting Firm:

Firm Name: ESA
Street Address: 80 South Lake Avenue, Suite 570
City/State/Zip: Pasadena, California 91101

Contact: Jessie Fan
Phone: 626.714.4611
Email: jfan@esassoc.com

The CITY OF SAN GABRIEL, as the Lead Agency, has prepared a Draft EIR for the Project identified below. This notice provides the public, nearby residents and property owners, responsible agencies, and other interested parties with a summary of the Project, conclusions of the Draft EIR, information regarding the availability of the Draft EIR for public review, and the timeframe for submitting comments on the Draft EIR.

Based on the analysis included in the Draft EIR, the Project would not result in any significant and unavoidable impacts and would not result in any cumulatively considerable impacts.



Project Title: Pacific Square San Gabriel Mixed-Use Project

Project Location: 700-800 South San Gabriel Boulevard, San Gabriel, CA 91776

Project Description: The Project would construct a mixed-use development on an approximately 5.85-acre Project Site of a total of approximately 495,544 square feet of residential and commercial uses, as well as a central park area. The 700 Plaza would include 102 residential units, 4 live/work units, and 36,352 square feet of ground floor commercial space. The 800 Plaza would include 141 residential units, 4 live/work units, and 39,694 square feet of ground floor commercial space. In total, there would be 243 residential units, 8 live/work units, and 76,046 square feet of commercial uses. In between the two plazas would be a 33,543 square feet central park area. A total of 983 vehicular parking spaces would be provided in one subterranean level, at-grade, and one mezzanine level.

As required by CEQA Guidelines Section 15087, additional public and agency review of the Project will be facilitated by the City through distribution of this Draft EIR for a 45-day public review period. The public review period will extend from **December 7, 2020, to January 21, 2021**. This Draft EIR, as well as appendices, can be found at the Project website (https://www.sangabrielcity.com/1339/700-800-S-San-Gabriel-Blvd). Please submit your written comments, with the subject line "Pacific Square Draft EIR Comments," postmarked or dated (for e-mails) no later than January 21, 2021 to:

Matt Chang, Senior Planner
City of San Gabriel Planning Division
425 South Mission Drive
San Gabriel, CA 91776
mchang@sgch.org

Date: December 7, 2020

Signature:

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Comment Letter No. 3

MAYOR:
SANDRA ARMENTA

MAYOR PRO TEM:
POLLY LOW

COUNCIL MEMBERS:
MARGARET CLARK
SEAN DANG
STEVEN LY

City of Rosemead

8838 E. VALLEY BOULEVARD P.O BOX 399
ROSEMEAD, CALIFORNIA 91770
TELEPHONE (626) 569-2100
FAX (626) 307-9218

January 20, 2021

Matt Chang, Senior Planner
City of San Gabriel
425 S. Mission Dr.
San Gabriel, CA 91776

Subject: Notice of Completion and Availability of a Draft Environmental Impact Report (EIR) – Pacific Square San Gabriel Mixed Use Project

Dear Mr. Chang,

The City of Rosemead has reviewed the Draft Environmental Impact Report (EIR) for the Pacific Square San Gabriel Mixed Use Project located at 700-800 S. San Gabriel Boulevard. We appreciate the opportunity to comment on the document.

The City's Traffic and Engineering Division has reviewed the VMT Analysis and the Project Circulation Study prepared for this mixed use development. Both project reports followed industry standards and basic guidelines in the report and analysis preparation. The Project looked at six intersections surrounding the site, all located in the City of San Gabriel. The LOS analysis for the Future plus Project determined that the proposed Project would not result in any impacts that are considered as significant. The Project is located in what is considered a LOW VMT area so it is assumed that this project will not increase VMT and no significant impacts would result. 3-1

We respectfully request you consider addressing the following comments:

1. That the City of San Gabriel make every effort to ensure no project traffic is routed or travel through residential neighborhoods including on Grand Avenue, Rosemead to access the Project. 3-2
2. That the City of San Gabriel ensures Project construction staging or parking of workers does not spill over into adjacent residential areas some of which are in the City of Rosemead. 3-3

On a related note, we have one additional comment regarding construction traffic. On December 9, 2020, Rosemead resident, Daniel Acosta, emailed the Rosemead City Council to express concern regarding the Project, attached. Specifically, the resident is 3-4

concerned about the construction traffic as he lives on Grand Avenue just east of the project site.

Additional comment: 3-4

3. Please respond to Rosemead resident regarding his request to prohibit construction traffic and designate Grand Avenue, City of Rosemead, as "off limits to Pacific Square-related hauling."

Please feel free to contact Director of Public Works, Chris Daste at (626) 569-2158 or cdaste@cityofrosemead.org , if you have any questions regarding this matter. 3-5

Sincerely,

Chris Daste
Director of Public Works

Angelica Frausto-Lupo
Director of Community Development

C: Gloria Molleda, City Manager

Attachment: Rosemead Resident Email to Rosemead City Council, Dec. 9, 2020

---------- Forwarded message ---------
From: **Daniel Acosta** <heymracosta@hotmail.com>
Date: Wed, Dec 9, 2020 at 11:15 AM
Subject: San Gabriel's Planned Pacific Square Development
To: Sandra Armenta <sarmenta@cityofrosemead.org>, Polly Low <plow@cityofrosemead.org>, Margaret Clarke <clarkeeesc@yahoo.com>, sdang@cityofrosemead.org <sdang@cityofrosemead.org>, Steven Ly <sly@cityofrosemead.org>

Honorable Mayor and City Council Members,

I'm writing to alert you to the latest in the process of San Gabriel's newest commercial development, **Pacific Square**. The reason for my concern over this development in our neighboring city is the prospect of the disruption of normalcy to our part of Rosemead adjacent to the planned development.

As you may recall, when the Alameda Corridor Extension (ACE) trenched the Union Pacific right-of-way through San Gabriel, ACE designated Earl and Grand Avenues in Rosemead as segments of the ACE haul route. The thousands of tractor-trailer hauls resulted in cracks in our sidewalk, house stucco, and windows, severe stress on residents, and the necessity to repave the section of Rosemead streets worn out by the many truck-trips required by the ACE dig. 3-6

As we approach the beginning of construction, I write here to ask that the City of Rosemead be proactive in your dealings with the City of San Gabriel and the Pacific Square developers to ensure that all Pacific Square-related construction traffic be prohibited in Rosemead, and that you designate Grand Avenue as off limits to Pacific Square-related hauling. 3-7

I would appreciate your email response to me to this important local issue. Thanks so much!

I have attached a copy of San Gabriel's latest communication on Pacific Square. 3-8

Daniel Acosta
8361 Grand Avenue
Rosemead
(626) 808-8420

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager
1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

January 21, 2021

Ref. DOC 5999801

Mr. Matt Chang
Senior Planner
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776

Dear Mr. Chang:

DEIR Response for Pacific Square San Gabriel Mixed-Use Project

The Los Angeles County Sanitation Districts (Districts) received a Draft Environmental Impact Report (DEIR) for the subject project on December 14, 2020. The proposed project is located within the jurisdictional boundary of District No. 15. Previous comments submitted by the Districts in correspondence dated September 27, 2018 (copy enclosed), to Ms. Tracy Steinkruger of your agency, still apply to the subject project with the following comments and updated information: 4-1

1. **Impact UTL-3**, *page 3.16-25*, first paragraph – The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 million gallons per day (mgd) and currently processes an average flow of 261.1 mgd, or the Los Coyotes Water Reclamation Plant located in the City of Cerritos, which has a capacity of 37.5 mgd and currently processes an average flow of 21.7 mgd. 4-2
2. **Table 3.16-5**, *page 3.16-26*, total wastewater generation – Based on proposed project specifications provided in the table, the expected increase in average wastewater flow from the project site, is 64,036 gallons per day. 4-3
3. **Impact UTL-3**, *page 3.16-26*, first paragraph under Table 3.16-5 – The servicing trunk sewer capacity levels should be considered when determining if Districts' facilities currently have the capacity to accommodate the additional wastewater generated by the proposed project. 4-4
4. The Districts' 21-inch diameter Joint Outfall B Unit IJ Trunk Sewer conveyed a peak flow of 2.9 mgd when last measured in 2018.

All other information concerning Districts' facilities and sewerage service contained in the document is current. If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717 or at araza@lacsd.org. 4-5

Very truly yours,

Adriana Raza

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

Enclosure

cc: A. Schmidt
A. Howard

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

September 27, 2018

Ref. Doc. No.: 4715019

Ms. Tracy Steinkruger
Planning Manager
City of San Gabriel
425 South Mission Drive
San Gabriel, CA 91776

Dear Ms. Steinkruger:

NOP Response to the Pacific Square San Gabriel Mixed-Use Project

The Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on September 4, 2018. The proposed project is located within the jurisdictional boundaries of District No. 15. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Joint Outfall B Unit 1J Trunk Sewer, located in San Gabriel Boulevard at Marshall Street. The Districts' 21-inch diameter trunk sewer has a capacity of 7.7 million gallons per day (mgd) and conveyed a peak flow of 3.3 mgd when last measured in 2012.

2. The wastewater generated by the proposed project will be treated at the Whittier Narrows Water Reclamation Plant (WRP) located near the City of South El Monte, which has a capacity of 15 mgd and currently produces an average recycled water flow of 7 mgd, or at the Los Coyotes WRP located in the City of Cerritos, which has a capacity of 37.5 mgd and currently produces an average recycled water flow of 20.8 mgd.

3. The expected increase in average wastewater flow from the project, described in the notice as a total of 243 residential units and 79,987 square feet of commercial development, is 72,341 gallons per day, after all structures on the project site are demolished. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

4. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a

connection fee will be required before a permit to connect to the sewer is issued. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link. In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at (562) 908-4288, extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: A. Schmidt
A. Howard

P: (626) 381-9248
F: (626) 389-5414
E: mitch@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA U.S. MAIL & E-MAIL

January 21, 2020

Matt Chang, Senior Planner
City of San Gabriel Planning Division
425 South Mission Drive
San Gabriel, CA 91776
Em: mchang@sgch.org

Re: Pacific Square San Gabriel Mixed-Use Project Draft Environmental Impact Report (SCH No. 2018081085)

Dear Mr. Chang,

On behalf of the Southwest Regional Council of Carpenters ("**Commenter**" or "**Carpenters**"), my Office is submitting these comments on the City of San Gabriel's ("**City**" or "**Lead Agency**") Draft Environmental Impact Report ("**DEIR**") (SCH No. 2018081085) for the Pacific Square San Gabriel Mixed-Use Project ("**Project**").

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects. Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts. 5-1

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121. 5-2

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

Commenters incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *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).

Moreover, Commenter 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**"), Cal Public Resources Code ("**PRC**") § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and 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. 5-2

The City should seriously consider proposing that the Applicant provide additional community benefits such as requiring local hire and use of a skilled and trained workforce to build the Project. The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or 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 an apprenticeship training program approved by the State of California. 5-3

In addition, the City should require the Project to be built to standards exceeding the applicable California Green Building Code at the time of building permit application to mitigate the Project's environmental impacts and to advance progress towards the State of California's environmental goals. 24 Cal. Code of Regulations § 101.9 ("standards approved by the California Building Standards Commission that are effective at the time an application for a building permit is submitted shall apply . . . .") 5-4

I. EXPERTS

This comment letter includes comments from air quality and greenhouse gas experts Matt Hagemann, P.G., C.Hg. and Paul Rosenfeld, Ph.D. concerning the EIR. Their comments, attachments, and Curriculum Vitae ("CV") are attached hereto and are incorporated herein by reference. 5-5

Matt Hagemann, P.G., C.Hg. ("Mr. Hagemann") has over 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Mr. Hagemann also served as Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closer. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring.

For the past 15 years, Mr. Hagemann has worked as a founding partner with SWAPE (Soil/Water/Air Protection Enterprise). At SWAPE, Mr. Hagemann has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality, and greenhouse gas emissions. 5-5

Mr. Hagemann has a Bachelor of Arts degree in geology from Humboldt State University in California and a Masters in Science degree from California State University Los Angeles in California.

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

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particular matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs,

perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants, Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources. 5-5

Dr. Rosenfeld has a Ph.D. in soil chemistry from the University of Washington, M.S. in environmental science from U.C. Berkeley, and B.A. in environmental studies from U.C. Santa Barbara.

II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of Regulations ("**CCR**" or "**CEQA Guidelines**") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment but also informed self-government.' [Citation.]" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564. The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810. 5-6

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures. CEQA Guidelines § 15002(a)(2) and (3). *See also, Berkeley Jets,* 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376, 400. The EIR serves to provide

public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines § 15002(a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in CEQA section 21081. CEQA Guidelines § 15092(b)(2)(A–B).

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position.' A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" *Berkeley Jets*, 91 Cal.App.4th 1344, 1355 (emphasis added) (quoting *Laurel Heights,* 47 Cal.3d at 391, 409 fn. 12). Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. Cnty. of Fresno* (2018) 6 Cal. 5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at 1355: 5-6

> A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.

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

B. CEQA Requires Revision and Recirculation of an Environmental Impact Report When Substantial Changes or New Information Comes to Light

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 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.* 5-7

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.

Based on the information contained in this letter, the City must revise and recirculate the DEIR for public comment.

C. CEQA Bars the Deferred Development of Environmental Mitigation Measures

CEQA mitigation measures proposed and adopted into an environmental impact report are required to describe what actions that will be taken to reduce or avoid an environmental impact. CEQA Guidelines § 15126.4(a)(1)(B) (providing "[f]ormulation of mitigation measures should not be deferred until some future time."). While the same Guidelines section 15126.5(a)(1)(B) acknowledges an exception to the rule against deferrals, but such exception is narrowly proscribed to situations where "measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way." (Id.) Courts have also recognized a similar exception to the general rule against deferral of mitigation measures where the performance criteria for each mitigation measure is identified and described in the EIR. *Sacramento Old City Ass'n v. City Council* (1991) 229 Cal.App.3d 1011.

Impermissible deferral can occur when an EIR calls for mitigation measures to be created based on future studies or describes mitigation measures in general terms but the agency fails to commit itself to specific performance standards. *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 281 (city improperly deferred mitigation to butterfly habitat by failing to provide standards or guidelines for its management); *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 671 (EIR failed to provide and commit to specific criteria or standard of performance for mitigating impacts to biological habitats); *see also Cleveland Nat'l Forest Found. v San Diego Ass'n of Gov'ts* (2017) 17 Cal.App.5th 413, 442 (generalized air quality measures in the EIR failed to set performance standards); *California Clean Energy Comm. v City of Woodland* (2014) 225 Cal.App.4th 173, 195 (agency could not rely on a future report on urban decay with no standards for determining whether mitigation required); *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal.App.4th 681, 740 (agency could not rely on future rulemaking to establish specifications to ensure emissions of nitrogen oxide would not increase because it did not establish objective performance criteria for measuring whether that goal would be achieved); *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1119 (rejecting mitigation measure requiring replacement water to be provided to neighboring landowners because it identified a general goal for mitigation rather than specific performance standard); *Endangered Habitats League, Inc. v.*

5-8

County of Orange (2005) 131 Cal.App.4th 777, 794 (requiring report without established standards is impermissible delay). 5-8

1. The EIR Defers Mitigation for Noise Impacts.

Here, the EIR defers the development of mitigation measure NOI-MM-1 to reduce potentially significant impacts relating to Project construction noise impacts. The DEIR acknowledges a potentially significant noise impact based upon the standard provided in the City's General Plan – Noise Element. (DEIR, 3.10-23.) The Noise Element limits daytime exterior noise to 45dB for noise-sensitive areas and 50dB for residential properties. (*Id.*) The DEIR acknowledges that construction noise will exceed this standard and would be potentially significant. (*Id.*) However, MM-NOI-1 constitutes deferred mitigation because many of the provisions are vague and enforceable. For instance, the MM-NOI-1 calls for:

- Muffled construction equipment *according to industry standards*, without providing any standards;
- Locating noise-generating equipment away from sensitive areas *where feasible*; 5-9
- Implementing noise attenuation measures (undefined) *to the extent feasible*;
- Use of electric air compressor or similar tools *where feasible*; and
- Location of construction equipment as far way from residential uses as possible and shielded with sound barriers (does not provide how far is feasible, if it will be effective, by what standard the placement will be governed, and what kind of sound barriers would be used).

MM-NOI-1 should be revised to include specific measures with applicable performance standards that will be implemented during construction to reduce noise impacts.

Similarly, MM-NO-2 also constitutes deferred mitigation to reduce noise impacts relating to operational outdoor events at the Project's on-site plaza. (DEIR, 3.10-29.) There is no mechanism to enforce any of the vague proposed mitigation to limit sound levels projected to reach as high as 92 dBA. The DEIR calls for "routine pre-performance sound tests/measurements…" but does not specify how sound levels will be measured, or by whom, or how this could be monitored or enforced after Project 5-10

completion. MM-NOI-2 should also be revised to include more detail about pre-performance sound volume checks and enforcement of that provision. 5-10

D. The DEIR Fails to Support its Findings with Substantial Evidence and Include All Feasible Mitigation Measures to Mitigate Potentially Significant Environmental Impacts

When new information is brought to light showing that an impact previously discussed in the EIR or IS/MND but found to be insignificant with or without mitigation in the EIR or IS/MND's analysis has the potential for a significant environmental impact supported by substantial evidence, the EIR or IS/MND must consider and resolve the conflict in the evidence. (See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109.) While a lead agency has discretion to formulate standards for determining significance and the need for mitigation measures—the choice of any standards or thresholds of significance must be "based to the extent possible on scientific and factual data and an exercise of reasoned judgment based on substantial evidence. (CEQA Guidelines § 15064(b); *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts* (2017) 3 Cal. App. 5th 497, 515; *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal. App. 5th 160, 206.) And when there is evidence that an impact could be significant, an EIR cannot adopt a contrary finding without providing an adequate explanation along with supporting evidence. (*East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App. 5th 281, 302.) 5-11

1. The DEIR's Air Quality Analysis is Not Supported by Substantial Evidence.

Air Quality and Greenhouse Gas Emissions experts SWAPE have submitted detailed comments outlining numerous deficiencies with the DEIR's air quality analysis.[1] The City should refer to SWAPE's attached comments for additional details, but to summarize, the DEIR's air quality analysis is not supported by substantial evidence for the following reasons: 5-12

- The DEIR's air quality analysis relies on unsubstantiated input parameters to estimate Project emissions, including:

[1] January 20, 2021 SWAPE GHG and Air Quality Comments on Pacific Square San Gabriel Mixed-Use Project, attached hereto as Exhibit C.

- Unsubstantiated reductions to CO_2, CH_4, and N_20;
- Unsubstantiated reductions to acres of grading;
- Unsubstantiated changes to individual construction phase lengths;
- Unsubstantiated change to number of construction days per week;
- Unsubstantiated changes to off-road construction equipment unit amounts;
- Unsubstantiated reductions to worker, vendor, and hauling trip numbers;
- Incorrect analysis of mobile-source operational emissions; 5-12
- Unsubstantiated change to fleet mix percentage;
- Unsubstantiated changes to wastewater treatment system percentages;
- Unsubstantiated changes to fireplace values;
- Unsubstantiated changes to energy use values;
- Incorrect application of construction-related mitigation measures; and
- Incorrect application of waste-related operational mitigation measures.

(Ex. C, 1-22.) SWAPE's updated analysis using the correct input parameters provided from information DEIR (which omitted many of the unsubstantiated changes) found that the Project will result in a potentially significant air quality impact. (Ex. C, 23.)

Additionally, SWAPE found that the Project's diesel particulate matter (DPM) health risk emissions were not adequately evaluated: (Ex. C, 23-8.)

- The HRA is incorrect because it relies upon flawed air modeling—underestimating DPM emissions; 5-13
- The omissions of a quantified HRA for operational emissions was unjustified under current OEHHA guidelines because of the

substantial number of daily vehicle trips generated by the Project; and

- The HRA fails to evaluate the potential health risks posed by the cumulative lifetime cancer risk to nearby, sensitive receptors resulting from all phases of Project construction and operational phases.

5-13

SWAPE performed a screening-level assessment and found a potentially significant impact relating to health risks to nearby, sensitive receptors.

A revised and recirculated EIR needs to be prepared that adequately addresses SWAPE's comments and mitigates the potential air quality impacts.

5-14

2. The DEIR's GHG Analysis is Not Supported by Substantial Evidence.

The DEIR's Greenhouse Gas Emissions analysis is also not supported by substantial evidence according to comments submitted by SWAPE. (Ex. C, 29-47.) Again, the City should refer to Exhibit C for further detail and response, but to summarize, the DEIR's GHG analysis was fundamentally flawed for the following reasons:

(1) The DEIR's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;

(2) The DEIR incorrectly relies on SCAG's outdated RTP/SCS;

(3) The DEIR incorrect relies on AB 32;

(4) AB 32, SCAG's RTP/SCS, the City's General Plan, and CARB's 2017 Scoping Plan, as well as Executive Orders S-3-05 and B-30-15, should not be relied upon to determine Project significance;

5-15

(5) The DEIR fails to consider the performance-based standards underlying CARB's 2017 Scoping Plan;

(6) The DEIR fails to consider the performance-based standards underlying SCAG's 2020 RTP/SCS;

(7) The DEIR fail to consider a quantitative GHG threshold; and

(8) The DEIR fail to identify a potentially significant GHG impact.

The DEIR needs to be revised and recirculated correctly finding a potentially significant GHG emissions impacts and institute all feasible mitigation measures to

reduce the Project's GHG impacts. (*See* Ex. C for measures the Project should consider to reduce GHG emissions, pp. 39-47.) 5-15

3. The DEIR Fails to Support its Hazards and Hazardous Materials Analysis with Substantial Evidence.

The DEIR fails to adequately disclose or analyze environmental impacts relating to hazards and hazardous materials. The DEIR indicates on page 3.7-6 that there are offsite facilities within the area listed on local and state databases due to hazardous substances contamination. The DEIR concludes that none of these sites pose a potential hazards risk to future occupants of the Project site without providing *any* detail or analysis on how this conclusion was reached. (DEIR, 3.7-6.) The DEIR's Hazards and Hazardous Materials appendix also fails to shed any light on the issue. (*See* DEIR, Appendix F, sec. 3.3.3.)

The sum of the DEIR's analysis in Appendix F, page 13, is that none of the sites in the surrounding area pose any risk based on one of any of the following factors <u>without including any analysis on why or how a factor was used with respect to any offsite area, where the factors came from, or how they can be used to determine a less than significant impact finding based upon accepted performance standards</u>: 5-16

- Reported distance of the facility from the subject property;
- The nature of the database on which the facility is listed, and/or whether the facility was listed on a database reporting unauthorized releases of hazardous materials, petroleum products, or hazardous wastes;
- Reported case type (e.g., soil only, failed UST test only);
- Reported substance released (e.g., chlorinated solvents, gasoline, metals);
- Reported regulatory agency status (e.g., case closed, "no further action"); and
- Location of the facility with respect to the reported groundwater flow direction (discussed in the "Hydrogeology" of this Report).

The DEIR lists the above factors but does not apply them to any offsite area. Thus, there is no evidence, let alone substantial evidence, for its conclusion that no offsite parcels in the surrounding area pose a hazards risk. Furthermore, what performance

standard is being used to make the determination and how were these factors chosen? The DEIR fails to give any explanation. 5-16

E. The DEIR Fails to Adequately Analyze the Project's Impacts to Transportation

The DEIR concludes that the Project will have a less than significant impact relating to vehicles miles traveled pursuant to CEQA Guidelines sec. 15064.3 using a screening criteria, or without conducting an actual VMT analysis that is below an acceptable specified VMT threshold. (DEIR, 3.14-10.) However, the Project does not meet any of the accepted screening criteria for a finding of a less than significant VMT impact. The Project site is not located within a Transit Priority Area (TPA), or a High Quality Transit Area (HQTA) according to information provided by SCAG's database.[2]

Even though the Project site is not located in a TPA or HQTA area, which are the only accepted criteria for screening based on location pursuant to CEQA Guidelines sec. 15064.3, the DEIR screens out the Project because it is located in a "low VMT area" under a "Transportation Analysis Zone" which the DEIR does not define. The DEIR speculates that the Project is similar to other projects in the TAZ, thus it will also be low VMT in nature, and then concludes the Project will not have a significant VMT impact. This is not an acceptable method of screening for VMT pursuant to CEQA Guidelines sec. 15064.3. 5-17

Not only is "low VMT" completely reductive, relative, and meaningless, but 15064.3(b)(1) specifies that only projects within one-half mile of a major transit stop (15 minute headways during rush hours) or along a high quality transit corridor can be presumed to have a less than significant VMT impact; or a project document must demonstrate that a project will have a *lower* VMT compared to existing conditions. The DEIR demonstrates neither. The DEIR's fails to provide substantial evidence to support its finding that the Project does not have significant transportation impacts.

In addition, the DEIR's omission of a VMT analysis for this Project unlawfully omits information required by CEQA. CEQA requires that an environmental document identify and discuss the significant effects of a Project, alternatives and how those

[2] SCAG Transit Priority Area and High Quality Transit Area Databases, searches conducted for Project address at: https://gisdata-scag.opendata.arcgis.com/datasets/transit-priority-areas-2016?geometry=-118.185%2C34.070%2C-117.996%2C34.119; https://gisdata-scag.opendata.arcgis.com/datasets/high-quality-transit-areas-hqta-2016-scag-region?geometry=-118.093%2C34.094%2C-118.088%2C34.095.

significant effects can be mitigated or avoided. (CEQA Guidelines § 15126.2; PRC §§ 21100(b)(1), 21002.1(a).) A Court "[w]hen reviewing whether a discussion is sufficient to satisfy CEQA, . . . the EIR (1) includes sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises [citation omitted], and (2) makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." (*Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 510 [citing *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405.]; *see also* PRC §§ 21002.1(e), 21003(b).) The Court may determine whether a CEQA environmental document sufficiently discloses information required by CEQA de novo as "noncompliance with the information disclosure provisions" of CEQA is a failure to proceed in a manner required by law. (PRC § 21005(a); see also Sierra Club v. County of Fresno (2018) 6 Cal. 5th 502, 515.) 5-17

The omission of a VMT analysis renders the DEIR fundamentally and basically inadequate so as to preclude meaningful public review. The DEIR must be revised and recirculated to include a VMT analysis with a significance determination and all feasible mitigation measures if necessary.

F. Due to the COVID-19 Crisis, the City Must Adopt a Mandatory Finding of Significance that the Project May Cause a Substantial Adverse Effect on Human Beings and Mitigate COVID-19 Impacts

CEQA requires that an agency make a finding of significance when a Project may cause a significant adverse effect on human beings. PRC § 21083(b)(3); CEQA Guidelines § 15065(a)(4).

Public health risks related to construction work requires a mandatory finding of significance under CEQA. 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. 5-18

SWRCC recommends that the Lead Agency adopt additional CEQA mitigation measures to mitigate public health risks from the Project's construction activities. SWRCC 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 SWRCC's experience with safe construction site work practices, SWRCC recommends that the Lead Agency require that while construction activities are being conducted at the Project Site:

Construction Site Design:

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

Testing Procedures:

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

5-18

- 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.

5-18

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.

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.

III. THE PROJECT VIOLATES THE STATE PLANNING AND ZONING LAW AS WELL AS THE CITY'S GENERAL PLAN

A. Background Regarding the State Planning and Zoning Law

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

General plan consistency is "the linchpin of California's land use and development laws; it is the principle which infused the concept of planned growth with the force of law." See *Debottari v. Norco City Council* (1985) 171 Cal. App. 3d 1204, 1213.

State law mandates two levels of consistency. First, a general plan must be internally or "horizontally" consistent: its elements must "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." (See Gov. Code § 65300.5; *Sierra Club v. Bd. of Supervisors* (1981) 126 Cal. App. 3d 698, 704.) A general plan amendment thus may not be internally inconsistent, nor may it cause the general plan as a whole to become internally inconsistent. See *DeVita*, 9 Cal. App. 4th at 796 fn. 12. 5-19

Second, state law requires "vertical" consistency, meaning that zoning ordinances and other land use decisions also must be consistent with the general plan. (See Gov. Code § 65860(a)(2) [land uses authorized by zoning ordinance must be "compatible with the objectives, policies, general land uses, and programs specified in the [general] plan."]; see also *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal. App. 3d 1176, 1184.) A zoning ordinance that conflicts with the general plan or impedes achievement of its policies is invalid and cannot be given effect. See *Lesher*, 52 Cal. App. 3d at 544.

State law requires that all subordinate land use decisions, including conditional use permits, be consistent with the general plan. See Gov. Code § 65860(a)(2); *Neighborhood Action Group*, 156 Cal. App. 3d at 1184.

A project cannot be found consistent with a general plan if it conflicts with a general plan policy that is "fundamental, mandatory, and clear," regardless of whether it is

consistent with other general plan policies. See *Endangered Habitats League v. County of Orange* (2005) 131 Cal. App. 4th 777, 782-83; *Families Unafraid to Uphold Rural El Dorado County v. Bd. of Supervisors* (1998) 62 Cal. App. 4th 1332, 1341-42 ("*FUTURE*").

Moreover, even in the absence of such a direct conflict, an ordinance or development project may not be approved if it interferes with or frustrates the general plan's policies and objectives. See *Napa Citizens*, 91 Cal. App. 4th at 378-79; see also *Lesher*, 52 Cal. App. 3d at 544 (zoning ordinance restricting development conflicted with growth-oriented policies of general plan). 5-19

B. <u>The DEIR Fails to Demonstrate Consistency with SCAG's RTP/SCS Plan</u>

First, while the EIR conducts a consistency analysis between the Project and SCAG's 2016 RTP/SCS Plan, it fails to consider *many* of that plan's other goals and policies which apply at the project level, specifically those addressing the reduction of greenhouse gas emissions. The Southern California Association of Government's ("SCAG") 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy ("2016 RTP/SCS") and the California Air Resources Board ("CARB") 2017 Climate Change Scoping Plan ("2017 Scoping Plan") outline numerous measures for reducing Project GHG emissions which the EIR fails to consider.[3]

In September 2008, SB 375 (Gov. Code § 65080(b) et seq.) was instituted to help achieve AB 32 goals through strategies including requiring regional agencies to prepare a Sustainable Communities Strategy ("SCS") to be incorporated into their Regional Transportation Plan ("RTP"). The RTP links land use planning with the regional transportation system so that the region can grow smartly and sustainably, while also demonstrating how the region will meet targets set by CARB that reduce the per capita GHG emission from passenger vehicles in the region. 5-20

In April 2012, SCAG adopted its 2012-2035 RTP/ SCS ("2012 RTP/SCS"), which proposed specific land use policies and transportation strategies for local governments to implement that will help the region achieve GHG emission reductions of 9 percent per capita in 2020 and 16 percent per capita in 2035. In April 2016, SCAG adopted the 2016-2040 RTP/SCS ("2016 RTP/SCS")[4], which incorporates and builds upon the

policies and strategies in the 2012 RTP/SCS[5],that will help the region achieve GHG emission reductions that would reduce the region's per capita transportation emissions by eight percent by 2020 and 18 percent by 2035.[6]

For both the 2012 and 2016 RTP/SCS, SCAG prepared Program Environmental Impact Reports ("PEIR") that include Mitigation Monitoring and Reporting Programs ("MMRP") that list project-level environmental mitigation measures that directly and/or indirectly relate to a project's GHG impacts and contribution to the region's GHG emissions.[7] These environmental mitigation measures serve to help local municipalities when identifying mitigation to reduce impacts on a project-specific basis that can and should be implemented when they identify and mitigate project-specific environmental impacts.[8] 5-20

The sections below outline applicable land use policies, transportation strategies, and project-level GHG measures identified in the 2012 and 2016 RTP/SCS and PEIRs which the EIR should consider in a revised consistency analysis (note that this is not an exhaustive list):

<u>Land Use and Transportation</u>

- Providing transit fare discounts[9];
- Implementing transit integration strategies[10]; and
- Anticipating shared mobility platforms, car-to-car communications, and automated vehicle technologies.[11]

5-21

<u>GHG Emissions Goals</u>[12] 5-22

[5] SCAG (Apr. 2016) 2016 RTP/SCS, p. 69, 75-115, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf (attached as Exhibit B).
[6] *Id.*, p. 8, 15, 153, 166.
[7] *Id.*, p. 116-124; see also SCAG 2012 RTP/SCS, supra fn. 38, p. 77-86.
[8] SCAG 2012 RTP/SCS, supra fn. 38, p. 77; see also SCAG 2016 RTP/SCS, supra fn. 41, p. 115.
[9] SCAG 2012 RTP/SCS, supra fn. 38, Tbls. 4.3 – 4.7; see also SCAG 2016 RTP/SCS, supra fn. 41, p. 75-114.
[10] *Id.*
[11] *Id.*
[12] SCAG 2012 RTP/SCS (Mar. 2012) Final PEIR MMRP, p. 6-2—6-14 (including mitigation measures ("MM") AQ3, BIO/OS3, CUL2, GEO3, GHG15, HM3, LU14, NO1, POP4, PS12, TR23, W9 [stating "[l]ocal agencies can and should comply with the requirements of CEQA to mitigate impacts to [the environmental] as applicable and feasible …[and] may refer to Appendix G of this PEIR for examples of potential mitigation to consider when appropriate in reducing environmental impacts of future projects." (Emphasis added)]), http://rtpscs.scag.ca.gov/Documents/peir/2012/final/Final2012PEIR.pdf; see also id., Final PEIR Appendix G (including MMs AQ1-23, GHG1-8, PS1-104, TR1-83, W1-62), http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_Example

- Reduction in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines,[13] such as:
  - o Potential measures to reduce wasteful, inefficient and unnecessary consumption of energy during construction, operation, maintenance and/or removal. The discussion should explain why certain measures were incorporated in the project and why other measures were dismissed.
  - o The potential siting, orientation, and design to minimize energy consumption, including transportation energy.
  - o The potential for reducing peak energy demand.
  - o Alternate fuels (particularly renewable ones) or energy systems.
  - o Energy conservation which could result from recycling efforts. 5-22
- Off-site measures to mitigate a project's emissions.
- Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to:
  - o Use energy and fuel-efficient vehicles and equipment;
  - o Deployment of zero- and/or near zero emission technologies;
  - o Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
  - o Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;
  - o Incorporate design measures to reduce energy consumption and increase use of renewable energy;
  - o Incorporate design measures to reduce water consumption;
  - o Use lighter-colored pavement where feasible;

Measures.pdf; SCAG 2016 RTP/SCS (Mar. 2016) Final PEIR MMRP, p. 11–63 (including MMs AIR-2(b), AIR-4(b), EN-2(b), GHG-3(b), HYD-1(b), HYD-2(b), HYD-8(b), TRA-1(b), TRA-2(b), USS-4(b), USS-6(b)), http://scagrtpscs.net/Documents/2016/peir/final/2016fPEIR_ExhibitB_MMRP.pdf.

[13] CEQA Guidelines, Appendix F-Energy Conservation, http://resources.ca.gov/ceqa/guidelines/Appendix_F.html.

o Recycle construction debris to maximum extent feasible;

- Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs.
- Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles; 5-22
- Land use siting and design measures that reduce GHG emissions, including:

  o Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and

  o Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.

<u>Hydrology & Water Quality Goals</u>

- Incorporate measures consistent in a manner that conforms to the standards set by regulatory agencies responsible for regulating water quality/supply requirements, such as:

  o Reduce exterior consumptive uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings(xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives. 5-23

  o Promote the availability of drought-resistant landscaping options and provide information on where these can be purchased. Use of reclaimed water especially in median landscaping and hillside landscaping can and should be implemented where feasible.

  o Implement water conservation best practices such as low-flow toilets, water-efficient clothes washers, water system audits, and leak detection and repair.

  o Ensure that projects requiring continual dewatering facilities implement

monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project. Comply with appropriate building codes and standard practices including the Uniform Building Code.

- o Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimized new impervious surfaces to the greatest extent possible, including the use of in-lieu fees and off-site mitigation.
- o Avoid designs that require continual dewatering where feasible.
- o Where feasible, do not site transportation facilities in groundwater recharge areas, to prevent conversion of those areas to impervious surface. 5-23

- Incorporate measures consistent in a manner that conforms to the standards set by regulatory agencies responsible for regulating and enforcing water quality and waste discharge requirements, such as:
  - o Complete, and have approved, a Stormwater Pollution Prevention Plan ("SWPPP") before initiation of construction.
  - o Implement Best Management Practices to reduce the peak stormwater runoff from the project site to the maximum extent practicable.
  - o Comply with the Caltrans stormwater discharge permit as applicable; and identify and implement Best Management Practices to manage site erosion, wash water runoff, and spill control.
  - o Complete, and have approved, a Standard Urban Stormwater Management Plan, prior to occupancy of residential or commercial structures.
  - o Ensure adequate capacity of the surrounding stormwater system to support stormwater runoff from new or rehabilitated structures or buildings.
  - o Prior to construction within an area subject to Section 404 of the Clean Water Act, obtain all required permit approvals and certifications for construction within the vicinity of a watercourse (e.g., Army Corps § 404 permit, Regional Waterboard § 401 permit, Fish & Wildlife § 401 permit).

- Where feasible, restore or expand riparian areas such that there is no net loss of impervious surface as a result of the project.
- Install structural water quality control features, such as drainage channels, detention basins, oil and grease traps, filter systems, and vegetated buffers to prevent pollution of adjacent water resources by polluted runoff where required by applicable urban stormwater runoff discharge permits, on new facilities.
- Provide structural stormwater runoff treatment consistent with the applicable urban stormwater runoff permit where Caltrans is the operator, the statewide permit applies.
- Provide operational best management practices for street cleaning, litter control, and catch basin cleaning are implemented to prevent water quality degradation in compliance with applicable stormwater runoff discharge permits; and ensure treatment controls are in place as early as possible, such as during the acquisition process for rights-of-way, not just later during the facilities design and construction phase. 5-23
- Comply with applicable municipal separate storm sewer system discharge permits as well as Caltrans' stormwater discharge permit including long-term sediment control and drainage of roadway runoff.
- Incorporate as appropriate treatment and control features such as detention basins, infiltration strips, and porous paving, other features to control surface runoff and facilitate groundwater recharge into the design of new transportation projects early on in the process to ensure that adequate acreage and elevation contours are provided during the right-of-way acquisition process.
- Design projects to maintain volume of runoff, where any downstream receiving water body has not been designed and maintained to accommodate the increase in flow velocity, rate, and volume without impacting the water's beneficial uses. Pre-project flow velocities, rates, volumes must not be exceeded. This applies not only to increases in stormwater runoff from the project site, but also to hydrologic changes induced by flood plain encroachment. Projects should not cause or contribute to conditions that degrade the physical integrity or ecological function of any downstream

receiving waters.

o Provide culverts and facilities that do not increase the flow velocity, rate, or volume and/or acquiring sufficient storm drain easements that accommodate an appropriately vegetated earthen drainage channel.

o Upgrade stormwater drainage facilities to accommodate any increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce flow velocities, including expansion and restoration of wetlands and riparian buffer areas. System designs shall be completed to eliminate increases in peak flow rates from current levels.

o Encourage Low Impact Development ("LID") and incorporation of natural spaces that reduce, treat, infiltrate and manage stormwater runoff flows in all new developments, where practical and feasible.

5-23

- Incorporate measures consistent with the provisions of the Groundwater Management Act and implementing regulations, such as:

  o For projects requiring continual dewatering facilities, implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project, Construction designs shall comply with appropriate building codes and standard practices including the Uniform Building Code.

  o Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimize to the greatest extent possible, new impervious surfaces, including the use of in-lieu fees and off-site mitigation.

  o Avoid designs that require continual dewatering where feasible.

  o Avoid construction and siting on groundwater recharge areas, to prevent conversion of those areas to impervious surface.

  o Reduce hardscape to the extent feasible to facilitate groundwater recharge as appropriate.

- Incorporate mitigation measures to ensure compliance with all federal, state, and

local floodplain regulations, consistent with the provisions of the National Flood Insurance Program, such as:

o Comply with Executive Order 11988 on Floodplain Management, which requires avoidance of incompatible floodplain development, restoration and preservation of the natural and beneficial floodplain values, and maintenance of consistency with the standards and criteria of the National Flood Insurance Program.

o Ensure that all roadbeds for new highway and rail facilities be elevated at least one foot above the 100-year base flood elevation. Since alluvial fan flooding is not often identified on FEMA flood maps, the risk of alluvial fan flooding should be evaluated and projects should be sited to avoid alluvial fan flooding. Delineation of floodplains and alluvial fan boundaries should attempt to account for future hydrologic changes caused by global climate change.

5-23

Transportation, Traffic, and Safety

- Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation.
- Create a ride-sharing program by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.
- Provide a vanpool for employees.
- Provide a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use, including:

  o Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement.

  o Direct transit sales or subsidized transit passes.

  o Guaranteed ride home program.

  o Pre-tax commuter benefits (checks).

  o On-site car-sharing program (such as City Car Share, Zip Car, etc.).

5-24

o On-site carpooling program.

o Distribution of information concerning alternative transportation options.

o Parking spaces sold/leased separately.

o Parking management strategies; including attendant/valet parking and shared parking spaces.

- Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.

5-24

- Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations, providing shuttle service to public transit, offering public transit incentives and providing public education and publicity about public transportation services.
- Build or fund a major transit stop within or near transit development upon consultation with applicable CTCs.
- Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.
- Purchase, or create incentives for purchasing, low or zero-emission vehicles.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.
- Promote ride sharing programs, if determined feasible and applicable by the Lead Agency, including:

o Designate a certain percentage of parking spaces for ride-sharing vehicles.

o Designate adequate passenger loading, unloading, and waiting areas for ride-sharing vehicles.

o Provide a web site or message board for coordinating shared rides.

o Encourage private, for-profit community car-sharing, including parking spaces for car share vehicles at convenient locations accessible by public transit.

o Hire or designate a rideshare coordinator to develop and implement

ridesharing programs.

- Support voluntary, employer-based trip reduction programs, if determined feasible and applicable by the Lead Agency, including:
  - o Provide assistance to regional and local ridesharing organizations.
  - o Advocate for legislation to maintain and expand incentives for employer ridesharing programs.
  - o Require the development of Transportation Management Associations for large employers and commercial/ industrial complexes.
  - o Provide public recognition of effective programs through awards, top ten lists, and other mechanisms.
- Implement a "guaranteed ride home" program for those who commute by public transit, ridesharing, or other modes of transportation, and encourage employers to subscribe to or support the program.
- Encourage and utilize shuttles to serve neighborhoods, employment centers and major destinations. 5-24
- Create a free or low-cost local area shuttle system that includes a fixed route to popular tourist destinations or shopping and business centers.
- Work with existing shuttle service providers to coordinate their services.
- Facilitate employment opportunities that minimize the need for private vehicle trips, such as encourage telecommuting options with new and existing employers, through project review and incentives, as appropriate.
- Organize events and workshops to promote GHG-reducing activities.
- Implement a Parking Management Program to discourage private vehicle use, including:
  - o Encouraging carpools and vanpools with preferential parking and a reduced parking fee.
  - o Institute a parking cash-out program or establish a parking fee for all single-occupant vehicles.

<u>Utilities & Service Systems</u> 5-25

- Integrate green building measures consistent with CALGreen (Title 24, part 11), U.S. Green Building Council's Leadership in Energy and Environmental Design, energy Star Homes, Green Point Rated Homes, and the California Green Builder Program into project design including, but not limited to the following:
  - o Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.
  - o Inclusion of a waste management plan that promotes maximum C&D diversion.
  - o Development of indoor recycling program and space.
  - o Discourage exporting of locally generated waste outside of the SCAG region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with SCAQMD and 2016 RTP/SCS policies can and should be required. 5-25
  - o Develop ordinances that promote waste prevention and recycling activities such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities.
  - o Develop alternative waste management strategies such as composting, recycling, and conversion technologies.
  - o Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts.
  - o Require the reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
  - o Integrate reuse and recycling into residential industrial, institutional and commercial projects.
  - o Provide recycling opportunities for residents, the public, and tenant businesses.

- Provide education and publicity about reducing waste and available recycling services.
- Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.

5-25

As the above tables indicate, the EIR fails to mention or demonstrate consistency with any of the above listed measures and strategies of the SCAG RTP/SCS Plan. Thus, the EIR fails to demonstrate the Project is consistent with the applicable RTP/SCS plan.

The extent of the DEIR's analysis of consistency can be found beginning on page 3.9-5 of the DEIR wherein nine general regional planning-level goals of the RTP/SCS Plan are selected for a consistency analysis with the proposed Project. Unsurprisingly, the DEIR finds that the Project is 100% consistent with all of these goals or strategies. (DEIR, 3.9-12.) However, the most basic and fundamental goal of the RTP/SCS Plan from which all of the others stem is greenhouse gas emissions reduction through expansion of mobility choices and locating jobs, housing, and employment closer together.[14] The DEIR does not demonstrate, through implementation of real programs or strategies, that it will encourage use of alternative modes of transit or promote walkability.

5-26

At most, the DEIR explains that future occupants may use a nearby bus line to connect to the Metro Gold Line. (DEIR, 3.9-8.) However, the Project is not located in a high-quality transit area or a transit priority area as those areas are defined by SCAG, and does not include any affordable housing units. Most or all of the future occupants of the Project will be of above-moderate income and will utilize a private automobile for transportation needs. The DEIR also does not include any uniquely pedestrian-friendly design features or connections to bicycle nodes or networks that would encourage walking or bicycle use to and from the Project site. Thus, the DEIR fails to demonstrate consistency with the few selected and inapplicable regional planning-level goals of the RTP/SCS Plan that it those for analysis.

Lastly, the DEIR should have evaluated the Project's consistency with SCAG's current

5-27

[14] Connect SoCal, 2020-2045 SCAG RTP/SCS Plan, Core Vision statement. Available at https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plansummary_0.pdf?1606000989.

RTP/SCS Plan—Connect SoCal.[15] Evaluation of consistency with outdated and inapplicable regional plans is insufficient.

5-27

An amended and recirculated DEIR needs to include a consistency analysis, not only with general goals and planning level policies of the RTP plan, but all goals and policies which apply to this Project.

C. The DEIR Fails to Demonstrate Consistency with the State Housing Law's Regional Housing Needs Assessment Requirements and the City's Obligations to Fulfill those Requirements in its Housing Element

State law requires that jurisdictions provide their fair share of regional housing needs and adopt a general plan for future growth (California Government Code Section 65300). The California Department of Housing and Community Development (HCD) is mandated to determine state-wide housing needs by income category for each Council of Governments (COG) throughout the state. The housing need is determined based on four broad household income categories: very low (households making less than 50 percent of median family income), low (50 to 80 percent of median family income), moderate (80 to 120 percent of median family income), and above moderate (more than 120 percent of median family income). The intent of the future needs allocation by income groups is to relieve the undue concentration of very low and low-income households in a single jurisdiction and to help allocate resources in a fair and equitable manner.

5-28

CEQA requires the DEIR analyze the Project's consistency with the State's housing goals. CEQA requires that an environmental document identify and discuss the significant effects of a Project, alternatives and how those significant effects can be mitigated or avoided. (CEQA Guidelines § 15126.2; PRC §§ 21100(b)(1), 21002.1(a).) A Court "[w]hen reviewing whether a discussion is sufficient to satisfy CEQA, . . . the EIR (1) includes sufficient detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues the proposed project raises [citation omitted], and (2) makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." (*Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 510 [citing *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 405.]; see also PRC §§ 21002.1(e), 21003(b).) The Court may determine whether a CEQA environmental document

[15] SCAG's Connect SoCal RTP/SCS Plan, 2020. Available at https://scag.ca.gov/connect-socal.

sufficiently discloses information required by CEQA de novo as "noncompliance with the information disclosure provisions" of CEQA is a failure to proceed in a manner required by law. (PRC § 21005(a); see also *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502, 515.)

SCAG is the COG for Los Angeles County and has determined that San Gabriel's RHNA for the 1/1/2014 - 10/1/2021 planning periods is 930 housing units including 118 units for extremely-low income residents, 118 units for very-low income residents, 142 units for low-income residents, and 154 units for moderate income residents.[16] According to the City' latest available RHNA Progress Report, the City has only constructed 1 housing unit for very-low income residents, 2 housing units for low-income residents, and 103 housing units for moderate income residents.[17] The City is thus woefully behind schedule meeting its requirements for the planning period that ends this year. The Project must incorporate an adequate number of affordable housing units across all income categories if the City has any hope in meeting its RHNA obligations under state housing law. 5-28

The DEIR should be revised and recirculated with an affordable housing component.

Second, the DEIR also fails to otherwise demonstrate consistency with goals and policies of the City's General Plan – Housing Element that encourages and requires construction of affordable housing within the City. Specifically the General Plan's Housing Action Plan requires expansion of the supply of housing to meet the requirements of the RHNA allocation, facilitation of construction of housing units for lower and moderate income households, encouraging housing for a broad range of income categories by private developers, and inclusion of affordable housing units as part of private housing developments.[18] Because the Project fails to include a single affordable housing unit—it is not consistent with the goals and policies of the City's General Plan Housing Element.

[16] San Gabriel General Plan – Housing Element, II-28. Available at https://www.sangabrielcity.com/DocumentCenter/View/2081/San-Gabriel-2013-Housing-Element_2013-9-17_adopted-final?bidId=.

[17] May 7, 2019 City of San Gabriel Staff Report re General Plan Housing Element Annual Progress Report for the 2018 Calendar Year, available at https://www.sangabrielcity.com/DocumentCenter/View/11140/Item-6B---General-Plan-Housing-Element-Annual-Progress-Report-for-the-2018-Calendar-Year?bidId=.

[18] City of San Gabriel General Plan – Housing Element, Housing Action Plan, pp. V-1~V-4.

IV. **CONCLUSION**

Commenters request that the City deny the Project's proposed Planned Development (PD), Zone Map Amendment to change the zoning of Project site to PD, Development Agreement, Tentative Tract Map, Precise Plan of Design, Master Sign Program, and Certification of the EIR. 5-29

Please contact my Office if you have any questions or concerns.

Sincerely,

Mitchell M. Tsai
Attorneys for Southwest Regional
Council of Carpenters

Attached:

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

Air Quality and GHG Expert Matt Hagemann CV (Exhibit B); and

January 20, 2020 SWAPE Letter to Greg Sonstein re Pacific Square San Gabriel Mixed-Use Project (Exhibit C).

EXHIBIT A

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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

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

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

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

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Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT B

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

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

EXHIBIT C

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

January 20, 2021

Greg Sonstein, Esq.
Mitchell M. Tsai, Attorney at Law
155 South El Molino Avenue Suite 104
Pasadena, CA 91101

Subject: Comments on the Pacific Square San Gabriel Mixed-Use Project (SCH No. 2018081085)

Dear Mr. Sonstein,

We have reviewed the December 2020 Draft Environmental Impact Report ("DEIR") for the Pacific Square San Gabriel Mixed-Use Project ("Project") located in the City of San Gabriel ("City"). The Project proposes to construct the 700 Plaza, which would include 102 residential units, 4 live/work units, and 36,352-SF of ground floor commercial space, as well as the 800 Plaza, which would include 141 residential units, 4 live/work units, and 39,694-SF of ground floor commercial space. The Project would also include a total of 983 vehicle parking spaces in two three-level garages on the 5.85-acre Project site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated EIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment. 5-32

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2 (p. 3.2-25).[1] 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 5-33

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[2] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[3]

5-33

When reviewing the Project's CalEEMod output files, provided in the Air Quality Data Output as Appendix B to the DEIR, we found that several model inputs were not consistent with information disclosed in the DEIR. As a result, the Project's construction and operational emissions are underestimated. An updated EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Reductions to CO_2, CH_4, and N_2O Intensity Factors

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes unsubstantiated reductions to the default CH_4, CO_2, and N_2O intensity factors (see excerpts below) (Appendix 4.1-1, pp. 552, 557).

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	702.44	441.9
tblProjectCharacteristics	N2OIntensityFactor	0.006	0

5-34

As you can see in the excerpt above, the CO_2 intensity factor was reduced by approximately 37%, while the CH_4 and N_2O intensity factors were each reduced to zero. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[4] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for the changes is: "CO2e intensity factor adjusted to reflect RPS standards for year 2023" (Appendix B-3, pp. 2088, 2098). Furthermore, the assumptions indicate that the revised CO_2 intensity factor is based on a 2018 Southern California Edison ("SCE") Sustainability Report (Appendix B-1, pp. 4).

However, these justifications are insufficient for three reasons. First, the link to the 2018 SCE Sustainability Report does not work, and as a result, we are unable to access the source provided by the assumptions. Second, both the "User Entered & Comments & Non-Default Data" table and the assumptions fail to mention or justify the changes to the CH_4 and N_2O intensity factors whatsoever.

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[2] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

[3] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

[4] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

Third, just because the ***state*** has Renewable Portfolio Standard ("RPS") ***goals*** does not mean these reductions would occur locally on the Project site or by the Project's utility company.

These unsubstantiated reductions present an issue, as CalEEMod uses the CH_4, CO_2, and N_2O intensity factors to calculate the Project's greenhouse gas ("GHG") emissions associated with electricity use. [5] Thus, by including unsubstantiated reductions to the default CH_4, CO_2, and N_2O intensity factors, the model may underestimate the Project's GHG emissions and should not be relied upon to determine Project significance. 5-34

Unsubstantiated Reductions to Acres of Grading

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1," "Pacific Square Construction Phase 1 - Full Mitigation," "Pacific Square Construction Phase 2," and "Pacific Square Construction Phase 2 - Full Mitigation" models include unsubstantiated reductions to the default acres of grading values (see excerpts below) (Appendix B-1, pp. 40, 64, 88, 110, 133, 158, 183, 206, 229, 254, 279, 302).

"Pacific Square Construction Phase 1" & "Pacific Square Construction Phase 1 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	124.00	2.92
tblGrading	AcresOfGrading	25.50	2.92

"Pacific Square Construction Phase 2" & "Pacific Square Construction Phase 2 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	126.50	2.93

5-35

As you can see in the excerpts above, the acres of grading values were reduced by 121.08- and 22.58-acres in the "Pacific Square Construction Phase 1" and "Pacific Square Construction Phase 1 - Full Mitigation" models; and the acres of grading value was reduced by 123.57-acres in the "Pacific Square Construction Phase 2" and "Pacific Square Construction Phase 2 - Full Mitigation" models. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for this change is: "see construction assumptions" (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301). Furthermore, the assumptions indicate that the total acreages for the 700 Plaza and the 800 Plaza would be 2.92- and 2.93-acres respectively (see excerpt below) (Appendix B-1, pp. 4).

[5] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* CalEEMod.com, p. 17.
[6] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

Land Use		Building SQFT	Building KFS	Units/ Spaces	Acres	CalEEMod Category
700 Plaza					2.920	
Residential		182,330	182.33	106	1.000	Mid-Rise Apartment
Live/Work		3,383	3.383		0.100	General Office
Sit-Down Restaurant		2,086	2.086		0.100	Hit-Turn over sit down
Fast Food, no Drivethru		5,650	5.65		0.100	Fast Food, no Drivethru
	Fast Food	3,150	3.15			Fast Food, no Drivethru
	Bakery	2,500	2.5			Fast food, no drivethru
Fitness		25,233	25.233		0.100	Health Club
Parking		167,200	167.200	418	1.000	Enclosed w/ elevator
Central Park		17,575	17.575		0.400	City Park
Plaza, Terrace, Balconies		53,334	53.334		0.120	Other non-asphalt surface
		456,791			2.920	
800 Plaza					2.930	
Residential		237,168	237.168	145	1.000	Mid-Rise Apartment
Live/Work		3,383	3.383		0.100	General Office
Sit-Down Restaurant		2,914	2.914		0.100	Hit-Turn over sit down
Fast Food, no Drivethru		5,952	5.952		0.100	Fast Food, no Drivethru
	Fast Food	2,415	2.415			Fast Food, no Drivethru
	Café	3,537	3.537			Fast food, no drivethru
Retail		7,115	7.115		0.100	strip mall
Market		20,330	20.330		0.100	supermarket
Parking		226,000	226.000	565	0.900	Enclosed w/ elevator
Central Park		17,575	17.575		0.400	City Park
Plaza, Terrace, Balconies		63,127	63.127		0.130	Other non-asphalt surface
		583,564			2.930	

5-35

However, this justification is insufficient, as *the dimensions of the Project site have no impact on the acres of grading value*. Specifically, according to the CalEEMod User's Guide:

> "[T]he dimensions (e.g., length and width) of the grading site have no impact on the calculation, only the total area to be graded. In order to properly grade a piece of land multiple passes with equipment may be required. The acres is based on the equipment list and days in grading or site preparation phase according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday."[7]

Thus, the dimensions of the grading site have no impact on the acres of grading value, and the justification provided fails to substantial evidence supported the revised acres of grading values. As a result, the revised acres of grading values are unsubstantiated.

These unsubstantiated reductions present an issue, as the acres of grading values are used by CalEEMod to estimate the dust emissions associated with grading.[8] By including unsubstantiated reductions to the Project's default acres of grading values, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine the significance of air quality impacts.

[7] "Appendix A Calculation Details for CalEEMod." *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 9.
[8] "Appendix A Calculation Details for CalEEMod." *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 9.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1" and "Pacific Square Construction Phase 1 - Full Mitigation" models include several changes to the default individual construction phase lengths (see excerpt below) (Appendix B-1, pp. 40, 64, 133, 158, 229, 254).

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	420.00
tblConstructionPhase	NumDays	6.00	248.00
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	3.00	17.00

As a result of these changes, the models include a construction schedule as follows (Appendix B-1, pp. 43, 67, 136, 161, 232, 257):

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Site Preparation	Site Preparation	5/1/2021	5/20/2021	6	17
2	Grading	Grading	5/21/2021	3/5/2022	6	248
3	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	6	63
4	Foundation	Building Construction	2/5/2022	4/15/2022	6	60
5	Building Construction	Building Construction	4/16/2022	8/18/2023	6	420
6	Paving	Paving	4/16/2022	8/2/2022	6	93
7	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	6	93

As demonstrated in the excerpts above, the architectural coating phase was increased by approximately 830%, from the default value of 10 to 93 days; the first building construction phase was decreased by approximately 73%, from the default value of 220 to 60 days; the second building construction phase was increased by approximately 91%, from the default value of 220 to 420 days; the grading phase was increased by approximately 4,033%, from the default value of 6 to 248 days; the paving phase was increased by approximately 830%, from the default value of 10 to 93 days; and the site preparation phase was increased by approximately 467%, from the default value of 3 to 17 days.

Similarly, review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 2" and "Pacific Square Construction Phase 2 - Full Mitigation" models include several changes to the default individual construction phase lengths (see excerpt below) (Appendix B-1, pp. 88, 110, 183, 206, 279, 302).

5-36

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	6.00	253.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	430.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDays	10.00	95.00

As a result of these changes, the models include a construction schedule as follows (Appendix B-1, pp. 91, 113, 185, 208, 282, 305):

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Grading	Grading	8/1/2021	5/23/2022	6	253
2	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	6	66
3	Foundation	Building Construction	4/23/2022	7/1/2022	6	60
4	Building Construction	Building Construction	7/2/2022	11/15/2023	6	430
5	Paving	Paving	7/2/2022	10/20/2022	6	95
6	Architectural Coating	Architectural Coating	9/12/2023	12/30/2023	6	95

5-36

As demonstrated in the excerpts above, the grading phase was increased by approximately 4,117%, from the default value of 6 to 253 days; the first building construction phase was decreased by approximately 73%, from the default value of 220 to 60 days; the second building construction phase was increased by approximately 95%, from the default value of 220 to 430 days; the paving phase was increased by approximately 850%, from the default value of 10 to 95 days; and the architectural coating phase was increased by approximately 850%, from the default value of 10 to 95 days.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[9] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for these changes is: "see construction assumptions" (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301). However, these changes remain unjustified for two reasons.

First, while the construction assumptions provide the construction schedules inputted into the model, they fail to provide a source or explanation for how these construction phase lengths were identified (see excerpt below) (Appendix B-1, pp. 5).

[9] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

Construction Schedule

	Phase Name	CalEEMod Phase Name	Start Date	End Date
700 Plaza		Overall	5/1/2021	9/30/2023
	Site Preparation	Site Prep	5/1/2021	5/20/2021
	Grading/Excavation	Grading	5/21/2021	3/5/2022
	Foundation	Building Construction	2/5/2022	4/15/2022
	Buildng Construction	Building Construction	4/16/2022	8/18/2023
	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021
	Paving	Paving	4/16/2022	8/2/2022
	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023
800 Plaza		Overall	8/1/2021	12/31/2023
	Grading/Excavation	Grading	8/1/2021	5/23/2022
	Foundation	Building Construction	4/23/2022	7/1/2022
	Buildng Construction	Building Construction	7/2/2022	11/15/2023
	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021
	Paving	Paving	7/2/2022	10/20/2022
	Architectural Coating	Architectural Coating	9/12/2023	12/31/2023

5-36

As you can see in the excerpt above, the construction assumptions identify the construction schedules inputted into the models but fail to provide a source or explanation for the revised phase lengths. This is incorrect, because, according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[10]

Here, however, the DEIR fails to provide *substantial evidence* for the revised individual construction phase lengths. As a result, the revised phase lengths are unsubstantiated.

Second, while the DEIR indicates that Project construction would begin in May 2021 and be completed in December 2023, thus providing the *total* construction period, the DEIR fails to provide the site-specific *individual construction phase lengths* (p. 2-19). As a result, we cannot verify the revised individual construction phase lengths included in the models.

These unsubstantiated changes present an issue, as disproportionately increasing the individual construction phase lengths improperly spreads out construction emissions over a longer period of time for some construction phases and not others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[11]

[10] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.
[11] "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. 31.

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

5-36

As such, by *disproportionately* altering individual construction phase lengths without proper justification, the model's calculations are altered and may underestimate emissions. Thus, by including unsubstantiated changes to the Project's anticipated individual construction phase lengths, the models may underestimate the Project's peak daily construction-related emissions and should not be relied upon to determine the significance of the Project's air quality impacts.

Unsubstantiated Change to Number of Construction Days Per Week

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1," "Pacific Square Construction Phase 1 - Full Mitigation," "Pacific Square Construction Phase 2," and "Pacific Square Construction Phase 2 - Full Mitigation" models include several changes to the default number of construction days per week (see excerpts below) (Appendix B-1, pp. 40, 64, 88, 110, 133, 158, 183, 206, 229, 254, 279, 302).

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"Pacific Square Construction Phase 1" & "Pacific Square Construction Phase 1 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

"Pacific Square Construction Phase 2" & "Pacific Square Construction Phase 2 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

As demonstrated in the excerpts above, the numbers of construction days per week were each manually increased from the default value of 5- to 6-days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[12] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for this change is: "see construction assumptions" (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301). However, while the construction assumptions provide the number of construction days per week, they fail to provide a source or explanation for these revisions (see excerpt below) (Appendix B-1, pp. 5).

Construction Schedule

	Phase Name	CalEEMod Phase Name	Start Date	End Date	Days/week
700 Plaza		Overall	5/1/2021	9/30/2023	6.00
	Site Preparation	Site Prep	5/1/2021	5/20/2021	
	Grading/Excavation	Grading	5/21/2021	3/5/2022	
	Foundation	Building Construction	2/5/2022	4/15/2022	
	Buildng Construction	Building Construction	4/16/2022	8/18/2023	
	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	
	Paving	Paving	4/16/2022	8/2/2022	
	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	
800 Plaza		Overall	8/1/2021	12/31/2023	6.00
	Grading/Excavation	Grading	8/1/2021	5/23/2022	
	Foundation	Building Construction	4/23/2022	7/1/2022	
	Buildng Construction	Building Construction	7/2/2022	11/15/2023	
	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	
	Paving	Paving	7/2/2022	10/20/2022	
	Architectural Coating	Architectural Coating	9/12/2023	12/31/2023	

5-37

As you can see in the excerpt above, the construction assumptions identify the number of construction days per week inputted into the models but fail to provide a source or explanation for the revised values. This is incorrect, because, according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[13]

Here, however, the DEIR fails to provide *substantial evidence* for the revised number of construction days per week. As a result, the changes are unsubstantiated. By including unsubstantiated changes to the default number of construction days per week, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine the significance of the Project's air quality impacts.

[12] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[13] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.

Unsubstantiated Changes to Off-Road Construction Equipment Unit Amounts

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1," "Pacific Square Construction Phase 1 - Full Mitigation," "Pacific Square Construction Phase 2," and "Pacific Square Construction Phase 2 - Full Mitigation" models include unsubstantiated reductions to the default off-road construction equipment unit amounts (see excerpts below) (Appendix B-1, pp. 41, 65, 89, 111, 134, 159, 184, 207, 230, 255, 280, 303).

"Pacific Square Construction Phase 1" & "Pacific Square Construction Phase 1 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

"Pacific Square Construction Phase 2" & "Pacific Square Construction Phase 2 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

5-38

As you can see in the excerpts above, the number of pieces of off-road equipment included in the models was collectively reduced by 14 pieces. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[14] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for this change is: "see construction assumptions" (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301). However, while the construction assumptions indicate what adjustments were made to the default off-road construction equipment unit amounts, they fail to provide a source or explanation for these revisions (see excerpt below) (Appendix B-1, pp. 5).

[14] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

Construction Equipment by Phase	CalEEMod Defaults with Adjustments		
	Adjustments		
	1	No Generators because of onsite electrical availability	
	2	Equipment for Foundation Phase	
		1	Cranes
		1	Dumpers/Tenders
		1	Forklifts
		1	Pumps
	3	Equipment for Drainage/Utilities/Trenching Phase	
		1	Tractors/Loaders/Backhoes
		1	Dumper/Tender
		1	Rough Terrain Forklifts

5-38

As you can see in the excerpt above, the construction assumptions identify the adjustments made to the off-road equipment unit amounts but fail to provide a source or explanation for the revised values. This is incorrect, because, according to the CalEEMod User's Guide:

> "CalEEMod was also designed to allow the user to change the defaults to reflect site- or project-specific information, when available, *provided that the information is supported by substantial evidence as required by CEQA*" (emphasis added).[15]

Here, however, the DEIR fails to provide *substantial evidence* for the revised off-road construction equipment unit amounts. As a result, the changes are unsubstantiated. By including unsubstantiated changes to the default number of construction days per week, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine the significance of the Project's air quality impacts.

Unsubstantiated Reductions to Worker, Vendor, and Hauling Trip Numbers

5-39

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1," "Pacific Square Construction Phase 1 - Full Mitigation," "Pacific Square Construction Phase 2," and "Pacific Square Construction Phase 2 - Full Mitigation" models include unsubstantiated reductions to the number of worker, vendor, and hauling trips required for Project construction (see excerpts below) (Appendix B-1, pp. 41, 65, 89, 111, 134, 159, 184, 207, 230, 255, 280, 303).

[15] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 12.

"Pacific Square Construction Phase 1" & "Pacific Square Construction Phase 1 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripNumber	88.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00

"Pacific Square Construction Phase 2" & "Pacific Square Construction Phase 2 - Full Mitigation"

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	0.00

5-39

As you can see in the excerpts above, the hauling, worker, and vendor trip numbers were each reduced to zero in the models. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[16] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for this change is: "Construction on-road emission calculated outside of CalEEMod" (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301). Furthermore, the DEIR states:

> "Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix B. Criteria pollutant emissions from worker vehicles and haul trucks were estimated outside of CalEEMod using EMFAC2017. Worker vehicles consisted of emission factors for light-duty automobiles and light-duty trucks. Vendor, cement, and haul trucks were based on emission factors for medium heavy-duty trucks and heavy-duty trucks" (p. 3.2-25).

[16] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

However, while this methodology is not inherently incorrect, the emissions calculations for the Project's hauling, vendor, and worker trips rely upon unsubstantiated individual construction phase lengths, as described above (see excerpt below) (Appendix B-1, pp. 29).

Pacific Square
Total On-Road Emissions

Construction Phase	Daily One-Way Trips	Haul Days per Phase (days)	Work Hours per Day (hours/day)	One-Way Trip Distance per Day (miles)	Idling per Day (minutes)
Site Prep-Phase 1	2021				
Total Haul Trips	100				
Hauling	100	1	8	20	15
Vendor	0	17	8	6.9	15
Worker	20	17	8	14.7	0
					Total
Grading-Phase 1	2021				
Total Haul Trips	13714				
Hauling	144	96	8	20	15
Vendor	0	248	8	6.9	15
Worker	20	248	8	14.7	0
					Total
Trenching Phase-1	2021				
Total Haul Trips	0				
Hauling	0	63	8	20	15
Vendor	0	63	8	6.9	15
Worker	20	63	8	14.7	0
					Total
Foundation-Phase 1	2021				
Total Haul Trips	2671				
Hauling	46	60	8	20	15
Vendor	0	60	8	6.9	15
Worker	40	60	8	14.7	0
					Total
Building Construction-Phase 1	2021				
Total Haul Trips	0				
Hauling	0	420	8	20	15
Vendor	56	420	8	6.9	15
Worker	100	420	8	14.7	0
					Total
Paving-Phase 1	2021				
Total Haul Trips	0				
Hauling	0	93	8	20	15
Vendor	0	93	8	6.9	15
Worker	20	93	8	14.7	0
					Total
Architectural Coating-Phase 1	2021				
Total Haul Trips	0				
Hauling	0	93	8	20	15
Vendor	0	93	8	6.9	15
Worker	40	93	8	14.7	0
					Total

5-39

Thus, the emissions calculations for the Project's hauling, vendor, and worker trips are inaccurate and should not be relied upon. As a result, the less-than-significant air quality impact conclusion is unsubstantiated.

Incorrect Analysis of Mobile-Source Operational Emissions

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model indicates that the Project's mobile-source operational emissions were calculated outside of CalEEMod (see excerpt below) (Appendix B-3, pp. 2093, 2103).

4.0 Operational Detail - Mobile Operational mobile emissions calculated outside of CalEEMod

As you can see in the excerpt above, the model indicates that the Project's mobile-source operational emissions were calculated outside of CalEEMod, and as result, the mobile-source operational emissions are not disclosed in the output file. Regarding the DEIR's mobile-source operational emissions analysis, the operational assumptions state:

> "Source: Fehr & Peers. 2019. Pacific Square Mixed Use Project Transportaiton Impact Study. Nov. Project land uses have been updated since this daily VMT was generated, however, they would result in a lower overall Project VMT. Thus, using this daily VMT value in emissions calculations is conservative" (Appendix B-3, pp. 2075).

Furthermore, the DEIR states: 5-40

> "Mobile source emissions were estimated based on CARB's EMFAC2017 and used to generate Air Basin-specific vehicle fleet emission factors in units of grams per mile, which are then converted to pounds per mile. Mobile source emissions were estimated outside of CalEEMod based on CARB's EMFAC2017 emission factors which were generated and using trip generation rates and VMT provided in the Project's Circulation Study (Fehr & Peers, 2020). In calculating mobilesource emissions, the trip length values were based on the distances provided in CalEEMod. Detailed emissions calculations are provided in Appendix B" (p. 3.2-27).

However, the DEIR's analysis of the Project's mobile-source operational emissions is incorrect for two reasons. First, while Appendix B provides the vehicle emission factors and road dust emission factors used to estimate the Project's mobile-source operational emissions, it fails to take into account trip purpose percentages, trip types, trip lengths, and fleet mix percentages utilized by CalEEMod to estimate the Project's mobile-source operational emissions.[17] Second, relying upon the Project's *average* daily VMT to estimate the Project's *maximum* daily mobile-source operational emissions is incorrect, as this fails to account for differences in trip generation on weekdays and weekends. Thus, the DEIR fails to adequately evaluate the Project's *maximum* daily mobile-source operational emissions. As such, the DEIR should have relied upon CalEEMod to estimate the Project's mobile-source operational criterial pollutant emissions. By failing to model any operational vehicle trips whatsoever, the model underestimates the Project's emissions and should not be relied upon to determine Project Significance.

[17] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

Unsubstantiated Change to Fleet Mix Percentage

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes several manual changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B-3, pp. 2089).

Table Name	Column Name	Default Value	New Value
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003
tblFleetMix	UBUS	2.1330e-003	1.6775e-003

5-41

As you can see in the excerpt above, the default fleet mix percentages for urban bus ("UBUS") vehicle type were manually reduced. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[18] However, the corresponding "User Entered & Comments & Non-Default Data" table fails to provide a justification for these changes (Appendix B-3, pp. 2088). Furthermore, the DEIR and operational assumptions fail to mention or justify these changes whatsoever. As a result, the revised operational vehicle fleet mix percentages are unsubstantiated. By including unsubstantiated changes to the default operational vehicle fleet mix percentages are unsubstantiated, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Wastewater Treatment System Percentages

5-42

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes several manual changes to the default wastewater treatment system percentages (see excerpts below) (Appendix B-3, pp. 2090-2091, 2100-2101).

[18] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

Table Name	Column Name	Default Value	New Value
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

5-42

As you can see in the excerpt above, the default aerobic, anaerobic and facultative lagoon, and septic tank wastewater treatment system percentages were manually revised by 97.54%, 2.46%, and 0%, respectively. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[19] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Based on Project water sensitivity calculations. See operational assumptions" (Appendix B, pp. 2088, 2098). However, both the DEIR and operational assumptions fail to mention or justify the revised wastewater treatment system percentages, and as a result, the changes are unsubstantiated. These unsubstantiated adjustments present an issue, as each type of wastewater treatment system is associated with different GHG emission factors in CalEEMod.[20]

[19] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[20] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 45

Thus, by incorrectly altering the wastewater treatment system percentages without sufficient justification, the model may underestimate the Project's operational GHG emissions and should not be relied upon to determine Project significance. 5-42

Unsubstantiated Changes to Fireplace Values

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes several manual changes to the default fireplace values (see excerpt below) (Appendix B-3, pp. 2088, 2099).

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	213.35	5.00
tblFireplaces	NumberNoFireplace	25.10	246.00

As you can see in the excerpt above, the number of gas fireplaces was reduced by approximately 208, and the number of units with no fireplace was increased by approximately 221. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[21] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for these changes is: "for fireplaces on 2nd floor terraces of plazas" (Appendix B-3, pp. 2088). However, the operational assumptions contradictorily state that defaults were used to model the Project's area-source operational emissions (see excerpt below) (Appendix B-3, pp. 2075). 5-43

Area Sources Defaults used

Furthermore, while the DEIR indicates that residential outdoor amenities would include fireplaces, the DEIR fails to mention or substantiate the claim that residential units would include only five gas fireplaces (p. 2-9). As a result, these revisions are unsubstantiated. This presents an issue, as CalEEMod uses the number and fuel type of the anticipated woodstoves and fireplaces to calculate the Project's area-source operational emissions.[22] Thus, by including unsubstantiated changes to the default fireplace values, the model may underestimate the Project's area-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Energy Use Values 5-44

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes several reductions to the default energy use values (see excerpt below) (Appendix B-3, pp. 2088, 2098).

[21] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

[22] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 40.

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	252.63	247.58
tblEnergyUse	T24E	3.92	3.50
tblEnergyUse	T24E	8.11	7.24
tblEnergyUse	T24E	4.60	4.11
tblEnergyUse	T24E	2.25	2.01
tblEnergyUse	T24E	8.11	7.24
tblEnergyUse	T24E	4.01	3.58
tblEnergyUse	T24E	4.42	3.95
tblEnergyUse	T24NG	7,012.17	6,661.56
tblEnergyUse	T24NG	42.98	42.55
tblEnergyUse	T24NG	10.02	9.92
tblEnergyUse	T24NG	13.65	13.51
tblEnergyUse	T24NG	42.98	42.55
tblEnergyUse	T24NG	1.15	1.14
tblEnergyUse	T24NG	9.83	9.73

As you can see in the excerpt above, the Title 24 electricity energy intensity ("T24E") and Title 24 natural gas energy intensity ("T24NG") were each manually reduced. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[23] According to the "User Entered & Comments & Non-Default Data" table, the justification provided for these changes is: "Adjusted for 2019 Title 24 standards. See operational assumptions" (Appendix B-3, pp. 2088, 2098). Furthermore, regarding the revised energy use values, the operational assumptions state: 5-44

> "CalEEMod currently uses Title 24 efficiency standards. The project will be built post 2019 therefore as a conservative estimate of T24 efficiencies required, the emission factors are updated to account for the inclusion of 2019 Title 24 standards" (Appendix B-3, pp. 2076).

However, while 2019 Title 24 standards *expect* a reduction in building energy consumption, these justifications are insufficient. Simply because the *state* has *goals* to reduce building energy consumption does not *guarantee* that any measures will be implemented and result in actual reductions locally on the Project site. Without further information about how these reductions would be achieved through the implementation, monitoring, and enforcement of energy-related mitigation measures, we are unable to verify the revised energy use values inputted into the model.

These unsubstantiated reductions present an issue, as CalEEMod uses the energy use values to calculate the Project's emissions associated with building electricity and non-hearth natural gas usage.[24] By including unsubstantiated changes to the Project's energy use values, the model may underestimate the Project's energy-source operational emissions and should not be relied upon to determine Project significance.

[23] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9
[24] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 43

Incorrect Application of Construction-Related Mitigation Measures

Review of the CalEEMod output files demonstrates that the "Pacific Square Construction Phase 1," "Pacific Square Construction Phase 1 - Full Mitigation," "Pacific Square Construction Phase 2," and "Pacific Square Construction Phase 2 - Full Mitigation" models includes the following construction-related mitigation measures (see excerpt below) (Appendix B-1, pp. 45, 69, 92, 114, 138, 163, 187, 210, 234, 259, 283, 306):

3.1 Mitigation Measures Construction

Use Soil Stabilizer
Water Exposed Area
Reduce Vehicle Speed on Unpaved Roads

Furthermore, the models include a 15-miles per hour ("MPH") vehicle speed (see excerpt below) (Appendix B-1, pp. 40, 64, 88, 110, 132, 157, 182, 205, 228, 253, 278, 301).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

5-45

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[25] According to the "User Entered Comments & Non-Default Data" table, the justification provided for the inclusion of this measure states: "see construction assumptions" (Appendix B-1, pp. 132, 157, 182, 205, 228, 253, 278, 301). However, the construction assumptions fail to mention or justify these measures whatsoever.

Furthermore, the DEIR states that the emissions estimates provided:

> "include appropriate dust control measures required to be implemented during each phase of development, as required by SCAQMD Rule 403 (Control of Fugitive Dust)" (p. 3.2-35).

However, simply because the DEIR states that the Project would comply with SCAQMD Rule 403 does not justify the inclusion of the above-mentioned construction-related mitigation measures in the models. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the

[25] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9

project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[26]

As you can see in the excerpt above, mitigation measures "are not part of the original project design" and are intended to go "above-and-beyond" existing regulatory requirements. As such, the inclusion of these measures, based on the Project's compliance with SCAQMD Rule 403, is unsubstantiated.

Second, according to SCAQMD Rule 403, Projects can *either* water unpaved roads 3 times per day, water unpaved roads 1 time per day and limit vehicle speeds to 15 mph *or* apply a chemical stabilizer (see excerpt below).[27]

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Unpaved Roads	(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.

5-45

As you can see in the above excerpt, to simply comply with SCAQMD Rule 403, the Project may *either* water unpaved roads 3 times per day, water unpaved roads 1 time per day and limit vehicle speeds to 15 mph, *or* apply a chemical stabilizer. Thus, none of the measures included in the CalEEMod model are explicitly required by SCAQMD Rule 403, and we cannot verify their inclusion in the models. By including several construction-related mitigation measures without properly committing to their implementation, the models may underestimate the Project's construction-related emissions and should not be relied upon to determine Project significance.

Incorrect Application of Waste-Related Operational Mitigation Measure

5-46

Review of the CalEEMod output files demonstrates that the "Pacific Square - Operations" model includes the following waste-related operational mitigation measure (see excerpt below) (Appendix B-3, pp. 2096, 2106):

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

[26] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.
[27] "RULE 403. FUGITIVE DUST." SCAQMD, June 2005, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf, p. 403-21, Table 2.

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[28] According to the "User Entered Comments & Non-Default Data" table, the justification provided for the inclusion of this measure states: "consistent with AB939" (Appendix B-3, pp. 2088, 2098). However, the inclusion of the above-mentioned waste-related mitigation measure is incorrect for two reasons.

First, AB 939 is inapplicable to the proposed Project. Specifically, the "Enforcement" section provided for the *California Integrated Waste Management Act* on the CalRecycle website, states:

> "The California Integrated Waste Management Act (AB 939, Sher, Chapter 1095, Statutes of 1989 as amended [IWMA]) made all California *cities, counties, and approved regional solid waste management agencies* responsible for enacting plans and implementing programs to divert 25 percent of their solid waste by 1995 and 50 percent by year 2000" (emphasis added).[29]

As you can see in the excerpt above, AB 939 only applies to cities, counties, and approved regional solid waste management agencies. Thus, AB 939 is not applicable at the project-level. As such, the inclusion of this measure based on AB 939 is unsubstantiated.

Second, we cannot guarantee that the above-mentioned waste-related operational mitigation measure would be implemented, monitored, and enforced on the Project site, because it is not included formally as a mitigation measure. According to the AEP *CEQA Portal Topic Paper* on mitigation measures: 5-46

> "By definition, *mitigation measures are not part of the original project design*. Rather, mitigation measures are actions taken by the lead agency to reduce impacts to the environment resulting from the original project design. Mitigation measures are identified by the lead agency after the project has undergone environmental review and are *above-and-beyond existing laws, regulations, and requirements* that would reduce environmental impacts" (emphasis added).[30]

Furthermore, AEP guidance states:

> "While not "mitigation", a good practice is *to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP)*. Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, *it is easy for someone not involved in the original environmental process to approve a change to the project*

[28] CalEEMod User Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 2, 9
[29] "Enforcement." CalRecycle, August 2018, *available at*: https://www.calrecycle.ca.gov/lgcentral/enforcement.
[30] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 5.

that could eliminate one or more of the design features without understanding the resulting environmental impact" (emphasis added).[31]

As you can see in the excerpts above, project design features, as well as existing regulations and requirements, *are not mitigation measures and may be eliminated from the Project's design*. Thus, as the above-mentioned waste-related operational mitigation measure is not formally included as a mitigation measure, we cannot guarantee that it would be implemented, monitored, and enforced on the Project site. As a result, the inclusion of the above-mentioned waste-related operational mitigation measure is incorrect, and the model should not be relied upon to determine Project significance. 5-46

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to determine the construction-related and operational emissions associated with the mixed-use development component of the Project, we prepared updated CalEEMod models, using the Project-specific information provided by the DEIR. In our updated model, we omitted the unsubstantiated changes to the energy intensity factors, acres of grading values, number of construction days per week, off-road construction equipment unit amounts, construction trip numbers, operational vehicle trip rates, operational vehicle fleet mix percentages, fireplace values, and energy use values, as well as excluded the unsubstantiated construction-related and waste-related operational mitigation measures. Finally, we proportionally increased the individual construction phase lengths to achieve the overall construction period length estimates provided by the DEIR. Our updated analysis demonstrates that the NO_X emissions associated with the construction of Phase 1 exceeds the SCAQMD threshold of 75 pounds per day ("lbs/day"); the ROG/VOC and NO_X emissions associated with the construction of Phase 2 exceed the SCAQMD thresholds of 75- and 100-lbs/day, respectively; the ROG/VOC and NO_X emissions associated with the concurrent construction of Phases 1 and 2 exceed the SCAQMD thresholds of 75- and 100-lbs/day, respectively; and the ROG emissions associated with Project operation exceed the SCAQMD threshold of 55 lbs/day (see tables below).[32] 5-47

Model	NO_X
SWAPE Phase 1 Construction	467
DEIR Maximum Daily	39
% Increase	1097%
SCAQMD Regional Threshold (lbs/day)	**100**
Threshold Exceeded?	***Yes***

[31] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.
[32] "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, *available at*: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

Model	ROG	NO_X
SWAPE Phase 2 Construction	84	252
DEIR Maximum Daily	39	67
% Increase	116%	276%
SCAQMD Regional Threshold (lbs/day)	**75**	**100**
Threshold Exceeded?	***Yes***	***Yes***

Model	ROG	NO_X
SWAPE Phase 1 Construction	70	467
SWAPE Phase 2 Construction	84	252
Total	154	719
DEIR	39	67
% Increase	296%	973%
SCAQMD Regional Threshold (lbs/day)	**75**	**100**
Threshold Exceeded?	***Yes***	***Yes***

Model	ROG
SWAPE Operation	89
DEIR Maximum Daily	21
% Increase	324%
SCAQMD Regional Threshold (lbs/day)	**55**
Threshold Exceeded?	***Yes***

As you can see in the excerpt above, the NO_X emissions associated with Phase 1 construction, ROG and NO_X emissions associated with Phase 2 construction, as well as Phases 1 and 2 construction together, and the ROG emissions associated with Project operation all increase when modeled correctly and exceed the corresponding SCAQMD significance thresholds. Thus, our models demonstrate that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the DEIR. As a result, an updated EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment. 5-47

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The DEIR conducts a quantified construction health risk assessment ("HRA") and estimates that Project construction would result in a mitigated cancer risk of 4 in one million, which would not exceed the SCAQMD threshold of 10 in one million (p. 3.2-42). Specifically, the DEIR states: 5-48

> "Implementation of Mitigation Measure MM-AQ-2 (combined with MM-AQ-1), further reduces cancer risk to offsite sensitive receptors to approximately 4 in one million, below the 10 in a million threshold" (p. 3.2-42).

As a result, the DEIR concludes that Project construction would result in a less-than-significant health risk impact. Regarding the potential health risk impacts associated with Project operation, the DEIR states:

> "Based on the expected uses on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal, regulated, and controlled, and therefore would not exceed the SCAQMD significance threshold. Therefore, impacts would be less than significant. Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes and automotive repair facilities. The Project would not include any of these potential sources, although minimal emissions may result from the use of consumer products (e.g., aerosol sprays). Therefore, the Project is not expected to release substantial amounts of TACs, and less than significant impacts on human health would occur" (p. 3.2-43).

However, the DEIR's evaluation of the Project's potential health risk impacts, as well as the less-than-significant impact conclusion, is incorrect for three reasons.

First, the DEIR's construction HRA is incorrect, as it relies upon an exhaust PM_{10} estimate from flawed air models, as discussed above (Appendix B-2, pp. 327). Thus, the construction HRA utilizes an underestimated diesel particulate matter ("DPM") concentration to calculate the health risk associated with Project construction. As such, the DEIR's construction HRA, which relies upon an incorrect and unsubstantiated air model, should not be relied upon to determine the significance of the Project's health risk impacts. 5-48

Second, the DEIR makes qualitative claims that "the release of TACs would be minimal, regulated, and controlled, and therefore would not exceed the SCAQMD significance threshold" and "[t]he Project would not include any" typical sources of "acutely and chronically hazardous TACs." However, these claims do not justify the omission of a quantified operational HRA. Rather, the DEIR indicates that the Project would generate 8,345 daily vehicle trips throughout operation, which will result in additional exhaust, thus continuing to expose nearby sensitive receptors to emissions (p. 3.10-26). However, the DEIR fails to make a reasonable effort to quantitatively connect the Project's estimated operational TAC emissions to the potential health risks posed to nearby receptors. Furthermore, by failing to prepare an operational HRA, the DEIR is inconsistent with recommendations set forth by the Office of Environmental Health and Hazard Assessment's ("OEHHA") most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, as relied upon by the DEIR (p. 3.2-5). The OEHHA document recommends that exposure from projects lasting more than six months should be evaluated for the duration of the project, and recommends that an exposure duration of thirty years be used to estimate individual cancer risk for the maximally exposed individual receptor ("MEIR").[33] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least thirty years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated, as a 30-year exposure duration vastly exceeds the 6-

[33] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-6, 8-15.

month requirement set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, we recommend that an updated assessment of health risk impacts posed to nearby sensitive receptors from Project operation be included in an updated EIR for the Project.

Third, while the DEIR includes an HRA evaluating the potential health risk impacts posed by Project construction to nearby, existing receptors, the HRA fails to evaluate the *cumulative* lifetime cancer risk to nearby, existing receptors as a result of all phases of Project *construction and operation together*. According to OEHHA guidance, as referenced by the DEIR, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location" (p. 3.2-5).[34] However, the HRA conducted in the DEIR fails to sum each age bin to evaluate the total cancer risk over the course of the Project's total construction and operation. This is incorrect and thus, an updated EIR should quantify the cumulative excess cancer risk posed by Project construction and operation to nearby, existing receptors, and compare it the SCAQMD threshold of 10 in one million.[35] 5-48

Screening-Level Assessment Indicates Significant Impact

In an effort to demonstrate the potential health risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact not previously identified by the DEIR.

In order to conduct our screening-level risk assessment we relied upon AERSCREEN, which is a screening level air quality dispersion model.[36] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[37] and the California Air Pollution Control Officers Associated ("CAPCOA")[38] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project. 5-49

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the SWAPE's updated CalEEMod models. Consistent with recommendations set forth by OEHHA, we assumed residential exposure begins during the third trimester stage of life. The Phase 1 Construction CalEEMod model

[34] "Guidance Manual for preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-4

[35] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 2-5.

[36] U.S. EPA (April 2011) AERSCREEN Released as the EPA Recommended Screening Model, http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

[37] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

[38] CAPCOA (July 2009) Health Risk Assessments for Proposed Land Use Projects, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

indicates that construction activities will generate approximately 16 pounds of DPM over the 881-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{16.36\ lbs}{881\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.0000975\ g/s}$$

Using this equation, we estimated a construction emission rate of 0.0000975 grams per second ("g/s"). Furthermore, the Phase 2 Construction CalEEMod model indicates that construction activities will generate approximately 16 pounds of DPM over the 880-day construction period. Applying the same equation used to estimate the Phase 1 construction DPM rate, we estimated the following emission rate for Phase 2 construction:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{15.78\ lbs}{880\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.0000941 g/s}$$

Using this equation, we estimated a construction emission rate of 0.0000941 grams per second ("g/s"). Subtracting the collective 972-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 27.33 years, approximately. SWAPE's operational CalEEMod emissions indicate that operational activities will generate approximately 419 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{419.2\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00603\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.00603 g/s. Construction and operational activity was simulated as a 5.85-acre rectangular area source in AERSCREEN with dimensions of 260 by 91 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[39] Review of the DEIR demonstrates that the nearest residences located directly adjacent to the Project

5-49

[39] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 4-36.

site's eastern boundary (p. 2-4, Figure 2-2). However, review of the AERSCREEN output files demonstrates that the ***maximally exposed*** individual resident ("MEIR") is located approximately 125 meters from the Project site. Thus, the single-hour concentration estimated by AERSCREEN for Phase 1 construction is approximately 0.156 µg/m^3 DPM at approximately 125 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.0156 µg/m^3 for Phase 1 construction at the MEIR. Furthermore, the single-hour concentration estimated by AERSCREEN for Phase 2 construction is approximately 0.1505 µg/m^3 DPM at approximately 125 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.01505 µg/m^3 for Phase 2 construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 9.649 µg/m^3 DPM at approximately 125 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.9649 µg/m^3 for Project operation at the MEIR.

5-49

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule included in the SWAPE's updated CalEEMod output files, the annualized average concentration for Phase 1 construction was used for the entire third trimester of pregnancy (0.25 years). The annualized average concentrations for Phases 1 and 2 construction were summed and used for the entire infantile stage of life (0 – 2 years), as well as the first 0.16 years of the child stage of life (2 – 16 years). The annualized average concentration for Phase 2 construction was next 0.25 years of the child stage of life. Finally, the annualized averaged concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remaining 13.59 years of the child stage of life, and the entire the adult stage of life (16 – 30 years).

Consistent with the DEIR's construction HRA, we used Age Sensitivity Factors ("ASF") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution (Appendix B-2, pp. 326). Furthermore, in accordance with the guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[40] Finally, according to SCAQMD guidance, we used a Fraction of Time At Home ("FAH") Value of 1 for the 3rd trimester and infant receptors.[41] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

[40] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," July 2018, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588supplementalguidelines.pdf, p. 16.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[41] "Risk Assessment Procedures for Rules 1401, 1401.1, and 212." SCAQMD, August 2017, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	ASF	Cancer Risk with ASFs*
Construction Phase 1	0.25	0.0156	361	10	2.1E-07
3rd Trimester Duration	***0.25***			***3rd Trimester Exposure***	***2.1E-07***
Construction Phases 1 & 2	2.00	0.03065	1090	10	1.0E-05
Infant Exposure Duration	***2.00***			***Infant Exposure***	***1.0E-05***
Construction Phases 1 & 2	0.16	0.03065	572	3	1.3E-07
Construction Phase 2	0.25	0.01505	572	3	9.7E-08
Operation	13.59	0.9649	572	3	3.4E-04
Child Exposure Duration	***14.00***			***Child Exposure***	***3.4E-04***
Operation	14.00	0.9649	261	1	3.9E-05
Adult Exposure Duration	***14.00***			***Adult Exposure***	***3.9E-05***
Lifetime Exposure Duration	**30.00**			**Lifetime Exposure**	**3.9E-04**

5-49

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 125 meters away, over the course of Project construction and operation, are approximately 39, 340, 10, and 0.21 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), is approximately 390 in one million. The child, adult, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the DEIR.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [42] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare an updated EIR with an HRA which makes a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

[42] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 6,066 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 3.6-21).

TABLE 3.6-6
UNMITIGATED PROJECT GREENHOUSE GAS EMISSIONS

Emission Source	Metric Tons CO_2e per year
Opening Operational Year (2023)	
Mobile Sources	4,222
Area	28
Electricity	1,017
Natural Gas	434
Waste	144
Water	102
Amortized Construction Emissions	119
Total Project GHG Emissions	**6,066**

[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix E.

SOURCE: ESA, 2019.

However, the DEIR fails to compare the Project's estimated GHG emissions to a quantitative GHG threshold, stating: 5-50

> "[N]o numerical thresholds of significance have been adopted. As further stated under Subsection 3.6.4, Thresholds of Significance, CEQA Guidelines Section 15064(h)(3) allows a Lead Agency to make a finding of non-significance for GHG emissions if a project complies with a program and/or other regulatory schemes to reduce GHG emissions. As stated under Impact GHG-1, the proposed Project would not conflict with any applicable plan, policy, regulation, or recommendation adopted for the purpose of reducing the emissions of GHGs, and impacts would be less than significant. **Therefore, consistent with CEQA Guidelines Section 15064(h)(3) and the determination that Impact GHG-1 would be less than significant, the proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be less than significant**" (p. 3.6-21).

Instead, the DEIR relies upon the Project's consistency with AB 32, SCAG's 2016 *RTP/SCS*, the City's General Plan, and CARB's 2017 *Scoping Plan*, as well as Executive Orders S-3-05 and B-30-15 (p. 3.6-15 - 3.6-20). However, the DEIR's GHG analysis, as well as the subsequent less-than-significant GHG impact conclusion, is incorrect for seven reasons.

(1) The DEIR's quantitative GHG analysis relies upon an incorrect and unsubstantiated air model;
(2) The DEIR incorrectly relies on SCAG's outdated RTP/SCS;
(3) The DEIR incorrect relies on AB 32;

(4) AB 32, SCAG's *RTP/SCS*, the City's General Plan, and CARB's 2017 *Scoping Plan*, as well as Executive Orders S-3-05 and B-30-15, should not be relied upon to determine Project significance;
(5) The DEIR fails to consider the performance-based standards underlying CARB's 2017 *Scoping Plan*; 5-50
(6) The DEIR fails to consider the performance-based standards underlying SCAG's 2020 *RTP/SCS*;
(7) The DEIR fail to consider a quantitative GHG threshold; and
(8) The DEIR fail to identify a potentially significant GHG impact.

(1) Incorrect and Unsubstantiated Quantitative GHG Analysis

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 6,066 MT CO_2e/year (p. 3.6-21). However, the DEIR's quantitative GHG analysis should not be relied upon, as it relies upon an unsubstantiated air model. As previously discussed, when we reviewed the Project's CalEEMod output files, provided in the Air Quality Data Output as Appendix B to the DEIR, we found that several of the values inputted into the model are not consistent with information disclosed in the DEIR and associated documents. As a result, the model underestimates the Project's GHG emissions, and the DEIR's quantitative GHG analysis should not be relied upon to determine Project significance. An updated EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the surrounding environment. 5-51

(2) Incorrect Reliance on SCAG's 2016 RTP/SCS

As previously stated, the DEIR relies upon the Project's consistency with SCAG's 2016 *RTP/SCS* in order to conclude that the Project's GHG impact would be less than significant (p. 3.6-15 - 3.6-20). However, in September 2020, SCAG adopted an updated document, *Connect SoCal: The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments*,[43] which the proposed Project should have relied upon. Thus, the DEIR's reliance upon the outdated 2016 *RTP/SCS* is incorrect and the subsequent less-than-significant GHG impact conclusion should not be relied upon. 5-52

(3) Incorrect Reliance on AB 32

As previously stated, the DEIR relies upon the Project's consistency with AB 32 in order to conclude that the Project's GHG impact would be less than significant (p. 3.6-15 - 3.6-20). However, this is incorrect, AB 32 only contains emissions reductions up to 2020. Specifically, according to CARB's 2008 *Climate Change Scoping Plan:* 5-53

[43] "Connect SoCal." SCAG, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

> "As the lead agency for implementing AB 32, the California Air Resources Board (ARB or the Board) released a Draft Scoping Plan on June 26, 2008, which laid out a comprehensive statewide plan to reduce California's greenhouse gas emissions to 1990 levels *by 2020*" (emphasis added).[44]

As you can see in the excerpt above, the purpose of AB 32 was to reduce statewide greenhouse gas emissions to 1990 levels *by* 2020. As such, AB 32 is not qualified to achieve statewide GHG reduction targets beyond 2020. Regarding the use of plans only qualified up to 2020, AEP's *Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California* states:

5-53

> "*Projects with a horizon year (e.g. the year in which the project is fully realized) beyond 2020 should not tier from a GHG reduction plan that may be qualified up to 2020 but is not yet qualified for a post-2020 period*" (emphasis added).[45]

As you can see in the excerpt above, projects that will become operational beyond 2020 should not tier from CAPs only qualified up to 2020. Given that it is January 2021, and the Project has not yet been approved, the Project will not become operational until *after 2020*. As such, we can reasonably assume that the Project will not become operational until after 2020. As a result, AB 32 is outdated and should not be relied upon to determine Project significance.

(4) Incorrect Reliance on AB 32, SCAG's RTP/SCS, the City's General Plan, and CARB's 2017 Scoping Plan, as well as Executive Orders S-3-05 and B-30-15

As previously stated, the DEIR relies upon the Project's consistency with AB 32, SCAG's *RTP/SCS*, the City's General Plan, and CARB's 2017 *Scoping Plan*, as well as Executive Orders S-3-05 and B-30-15, in order to conclude that the Project's GHG impact would be less than significant (p. 3.6-15 - 3.6-20). However, these plans and policies do not qualify as adequate GHG reduction plans or CAPs under CEQA. CEQA Guidelines § 15064.4(b)(3) and § 15183(b) allow a lead agency to consider a project's consistency with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. When read in conjunction, CEQA Guidelines § 15064.4(b)(3) and § 15183.5(b)(1) make clear that qualified GHG reduction plans or CAPs should include the following features:

5-54

[44] "Climate Change Scoping Plan: A Framework for Change Pursuant to AB 32 The California Global Warming Solutions Act of 2006." California Air Resources Board (CARB), December 2008, *available at:* https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/document/adopted_scoping_plan.pdf, p. 1.
[45] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 38.

(1) **Inventory**: Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
(2) **Establish GHG Reduction Goal**: Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
(3) **Analyze Project Types**: Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
(4) **Craft Performance Based Mitigation Measures**: Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; 5-54
(5) **Monitoring**: Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels.

Collectively, the above-listed features tie qualitative measures to quantitative results, which in turn become binding via proper monitoring and enforcement by the jurisdiction—all resulting in real GHG reductions for the jurisdiction as a whole, and substantial evidence demonstrating that a project's incremental contribution is not cumulatively considerable. Here, however, the DEIR fails to demonstrate that these plans and policies include the above-listed requirements to be considered qualified GHG Reduction Plans or CAPs for the City. As such, the DEIR leaves an analytical gap showing that compliance with said plans and policies can be used for a project-level significance determination. Thus, the DEIR's GHG significance determination regarding AB 32, SCAG's *RTP/SCS*, the City's General Plan, and CARB's 2017 *Scoping Plan*, as well as Executive Orders S-3-05 and B-30-15, should not be relied upon.

(5) Failure to Consider Performance-Based Standards Under CARB's 2017 Scoping Plan

As previously discussed, the DEIR relies upon the Project's consistency with CARB's 2017 *Scoping Plan* in order to determine the significance of the Project's GHG impact. However, the DEIR fails to consider the performance-based standards under the applicable CARB 2017 *Scoping Plan*.

i. Passenger & Light Duty VMT Per Capita Benchmarks per SB 375 5-55

In reaching the State's long-term GHG emission reduction goals, CARB's 2017 *Scoping Plan* explicitly cites to SB 375 and the VMT reductions anticipated under the implementation of Sustainable Community Strategies.[46] CARB has identified the population and daily VMT from passenger autos and light-duty vehicles at the state and county level for each year between 2010 to 2050 under a "baseline scenario" that includes "current projections of VMT included in the existing Regional Transportation Plans/Sustainable Communities Strategies (RTP/SCSs) adopted by the State's 18 Metropolitan Planning Organizations (MPOs) pursuant to SB 375 as of 2015."[47] By dividing the projected daily VMT by the

[46] CARB (Nov. 2017) 2017 Scoping Plan, p. 25, 98, 101-103, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.
[47] CARB (Jan. 2019) 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals ("Supporting Calculations for 2017 Scoping Plan-Identified VMT Reductions"), Excel Sheet "Readme", https://ww2.arb.ca.gov/sites/default/files/2019-01/sp_mss_vmt_calculations_jan19_0.xlsx.

population, we calculated the daily VMT per capita for each year at the state and county level for 2010 (baseline year), 2024 (Project operational year), and 2030 (target years under SB 32) (see table below and Attachment D).

2017 Scoping Plan Daily VMT Per Capita						
	Los Angeles County			State		
Year	**Population**	**LDV VMT Baseline**	**VMT Per Capita**	**Population**	**LDV VMT Baseline**	**VMT Per Capita**
2010	9,838,771	216,979,221.64	22.05	37,335,085	836,463,980.50	22.40
2024	10,627,846	219,237,756.72	20.63	41,994,283	926,776,780.89	22.07
2030	10,868,614	215,539,586.12	19.83	43,939,250	957,178,153.20	21.78

5-55

According to the operational assumptions, the Project is expected to have a daily vehicle miles traveled ("VMT") value of 31,209 VMT per day ("VMT/day"). Furthermore, according to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[48] The DEIR estimates that the Project would employ and house approximately 171 and 804 people, respectively, upon buildout (p. 3.11-5, Table 3.11-2). Thus, we estimate a service population of 975 people.[49] Lastly, as the DEIR fails to disclose the Project's operational vehicle fleet mix percentages, we relied upon the CalEEMod default values. The below table compares the 2017 *Scoping Plan* daily VMT per capita values against the daily VMT per capita values for the Project based on the DEIR's daily VMT estimate (see table below and Attachment E).

[48] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[49] Calculated: 171 employees + 804 residents = 975 service population.

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**DEIR Modeling**
Daily VMT from Auto & Light-Duty Vehicles	24,859
Service Population	975
Daily VMT Per Capita	25.50
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.07 VMT (2024 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Los Angeles County Specific	
22.05 VMT (2010 Baseline) Exceed?	**Yes**
20.63 VMT (2024 Projected) Exceed?	**Yes**
19.83 VMT (2030 Projected) Exceed?	**Yes**

5-55

As shown above, the DEIR's daily VMT estimate demonstrates that the Project exceeds the CARB 2017 *Scoping Plan* projections for 2010, 2024, and 2030. Because the Project exceeds the CARB 2017 *Scoping Plan* performance-based daily VMT per capita projections, the Project conflicts with the CARB 2017 *Scoping Plan* and SB 375. As such, the DEIR's claim that the proposed Project would not conflict with the CARB 2017 *Scoping Plan* is incorrect and unsubstantiated. An updated EIR should be prepared for the proposed Project to provide additional information and analysis to conclude less than significant GHG impacts.

(6) Failure to Consider Performance-Based Standards Under SCAG's 2020 RTP/SCS

As previously discussed, the DEIR relies upon SCAG's *RTP/SCS*. However, this is incorrect, as the DEIR fails to consider the performance-based standards under SCAG's *RTP/SCS* and SB 375, such as: i) per capita GHG emission targets, or ii) daily vehicles miles traveled ("VMT") per capita benchmarks.

i. SB 375 Per Capita GHG Emission Goals

5-56

SB 375 was signed into law in September 2008 to enhance the state's ability to reach AB 32 goals by directing CARB to develop regional 2020 and 2035 GHG emission reduction targets for passenger vehicles (autos and light-duty trucks). In September 2010, CARB adopted regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035, assigning SCAG the targets of an eight percent reduction by 2020 and a 13 percent reduction by 2035. This goal is reflected in SCAG's 2016 RTP/SCS,[50] in which the 2016 RTP/SCS Program EIR ("PEIR") determined that the per capita emissions were 23.8 pounds per day ("lbs/day") in 2005, and that SCAG's 2016 RTP/SCS plan would achieve per capita

[50] SCAG (Apr. 2016) 2016 RTP/SCS, p. 8, 15, 153, 166, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

emissions of 21.4 lbs/day in 2020 (i.e., a reduction of 8 percent from 2005 levels) and 19.5 lbs/day in 2035 (i.e., a reduction of 18 percent from 2005 levels) (*see* excerpt below).[51]

TABLE 3.8.4-3
SB 375 ANALYSIS

	2005 (Baseline)	2020 (Plan)	2035 (Plan)	2040 (Plan)
Resident population (per 1,000)	17,161	19,060	21,475	22,116
CO_2 emissions (per 1,000 tons)	204.0*	203.6**	206.0**	203.0**
Per capita emissions (pounds/day)	23.8	21.4	19.5	18.7
% difference from Plan (2020) to Baseline (2005)				–8%*
% difference from Plan (2035) to Baseline (2005)				–18%***
% difference from Plan (2040) to Baseline (2005)				–22%***

NOTE:
* Based on EMFAC2007
** Based on EMFAC2014
***Included off-model adjustments for 2035 and 2040
SOURCE:
SCAG modeling, 2015
Southern California Association of Governments. 5 November 2015. *Item No. 1 Staff Report: 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) – Proposed Major Components*. Available at: http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf

In March 2018, CARB adopted updated targets requiring a 19 percent decrease in VMT for the SCAG region by 2035. This goal is reflected in SCAG's 2020 RTP/SCS Program Environmental Impact Report ("PEIR"),[52] in which the 2020 RTP/SCS PEIR updates the per capita emissions to 21.3 lbs/day in 2020 and 18.8 lbs/day in 2035 (*see* excerpt below). [53]

Table 3.8-10
SB 375 Analysis

	2005 (Baseline)	2020 (Plan)	2035 (Plan)
Resident population (per 1,000)	17,161	19,194	21,110
CO2 emissions (per 1,000 tons)	204.0/a/	204.5/b/	198.6/b/
Per capita emissions (pounds/day)	23.8	21.3	18.8
% difference from Plan (2020) to Baseline (2005)			–8%
% difference from Plan (2035) to Baseline (2005)			–19%/c/

Note:
/a/ Based on EMFAC2007
/b/Based on EMFAC2014 and SCAG modeling, 2019.
/c/ Includes off-model adjustments for 2035 and 2045
Source: SCAG modeling, 2019.
http://www.scag.ca.gov/committees/CommitteeDocLibrary/jointRCPC110515fullagn.pdf

5-56

[51] SCAG (11/24/15) 2016 RTP/SCS Draft PEIR, p. 3.8-37 – 3.8-38, http://scagrtpscs.net/Documents/2016/peir/draft/2016dPEIR_Complete.pdf.
[52] "Connect SoCal Certified Final Program Environmental Impact Report." SCAG, May 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_complete.pdf?1607981618.
[53] "Connect SoCal Certified Final Program Environmental Impact Report." SCAG, May 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/fpeir_connectsocal_complete.pdf?1607981618, p. 3.8-74.

In order to evaluate consistency with this SB 375 objective and SCAG's *RTP/SCS* performance-based goals, SWAPE calculated the Project's per-capita CO_2 emissions from passenger and light duty vehicles based on the DEIR's modeling (calculations attached hereto as Attachment B). First, total annual GHG mobile emissions were multiplied by the default auto and light-duty truck fleet mix percentages, then converted into total pounds per day, then divided by the estimated service population of 975. The below table shows the per capita emissions for the Project based on the DEIR's modeling (see table below and Attachment B).

CO_2e Per Capita Emissions from Passenger & Light-Duty Trucks,	
Exceedances under RTP/SCS Performance-Based SB 375 Goals	
Sources	**Project**
	DEIR Modeling
Annual Mobile Emissions (MT CO_2e/year)	4,635.98
Passenger & Light-Duty Fleet Mix (%)	79.65%
Daily CO_2e Emissions (lbs/day)	22,304.05
Service Population	975
Per Capita Emissions (lbs/day)	**22.88**
21.3 lbs/day/SP (2020 Goal) Exceeded?	**Yes**
18.8 lbs/day/SP (2035 Goal) Exceeded?	**Yes**

5-56

As shown in the above table, when utilizing the DEIR's modeling, the Project would result in 22.88 pounds per day per service population ("lbs/day/SP") emissions. This exceeds both SCAG's 2020 and 2035 targets of 21.3- and 18.8-lbs/day/SP, respectively, indicating that the Project is inconsistent with SB 375 and SCAG's *RTP/SCS*.

i. SB 375 RTP/SCS Daily VMT Per Capita Target

Under the SCAG's 2020 *RTP/SCS*, daily VMT per capita in the SCAG region should decrease from 23.2 VMT in 2016 to 20.7 VMT by 2045.[54] Daily VMT per capita in Los Angeles County should decrease from 22.2 to 19.2 VMT during that same period.[55]

Here, however, the DEIR fails to consider any of the abovementioned performance-based VMT targets. In order to evaluate consistency with the *RTP/SCS*'s performance-based VMT reduction targets, SWAPE calculated the Project's VMT from passenger and light duty vehicles based on the DEIR's annual VMT estimate (calculations attached hereto as Attachment C). As previously stated, according to the

[54] "Connect SoCal." SCAG, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176, pp. 138.
[55] "Connect SoCal." SCAG, September 2020, *available at*: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176, pp. 138.

operational assumptions, the Project is expected to have a daily VMT value of 31,209 VMT/day. First, daily VMT from passenger automobile and light-duty vehicle were calculated based on the CalEEMod default fleet mix then divided by the estimated service population of 975. The below table shows the daily VMT per capita for the Project based on the DEIR's modeling (see table below and Attachment C).

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under RTP/SCS Performance-Based SB 375 Target	
Sources	**Project DEIR Modeling**
Daily VMT from Auto & Light-Duty Vehicles	24,859
Service Population	975
Daily VMT Per Capita	25.50
2020 RTP/SCS Benchmarks, SCAG-Wide	
23.2 VMT (2016 Baseline) Exceed?	**Yes**
20.7 VMT (2045 Target) Exceed?	**Yes**
2020 RTP/SCS Benchmarks, Los Angeles County	
22.2 VMT (2016 Baseline) Exceed?	**Yes**
19.2 VMT (2045 Target) Exceed?	**Yes**

5-56

As shown in the above table, based on a service population of 975, the Project would result in 25.5 daily VMT per capita from passenger auto and light-duty truck vehicles. This exceeds all SCAG and Los Angeles County specific benchmarks and targets under SCAG's 2020 *RTP/SCS*. Thus, based on the DEIR's VMT estimate, the Project would exceed the 2016 baseline and 2045 target VMT per capita values for both Los Angeles County and the SCAG region as a whole, indicating that the Project conflicts with the SCAG's *RTP/SCS* and SB 375.

(7) Failure to Apply a Quantitative GHG Threshold

5-57

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 6,066 MT CO_2e/year (p. 3.6-21). However, the DEIR fails to apply a quantitative GHG threshold to evaluate the Project's emissions, instead incorrectly relying upon AB 32, SCAG's *RTP/SCS*, the City's General Plan, and CARB's 2017 *Scoping Plan*, as well as Executive Orders S-3-05 and B-30-15, as described above. Since the DEIR should not rely upon the Project's consistency with these plans and policies to determine Project significance, we recommend that the Project apply the AEP's "2030 Land Use Efficiency Threshold" of 2.6 metric tons of CO_2 equivalents per service population per year ("MT CO_2e/SP/year").[56] In support of this threshold for projects with a horizon year beyond 2020, AEP's guidance *states*:

[56] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

> "Once the state has a full plan for 2030 (which is expected in 2017), and then *a project with a horizon between 2021 and 2030 should be evaluated based on a threshold using the 2030 target*. A more conservative approach would be to apply a 2030 threshold *based on SB 32* for any project with a horizon between 2021 and 2030 regardless of the status of the Scoping Plan Update" (emphasis added).[57]

5-57

As the California Air Resources Board ("CARB") adopted *California's 2017 Climate Change Scoping Plan* in November of 2017, the proposed Project "should be evaluated based on a threshold using the 2030 target," according to the relevant guidance referenced above. Thus, we recommend that an updated EIR be prepared, including an updated air model and comparing the Project's estimated GHG emissions to the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year.

(8) Failure to Identify a Potentially Significant GHG Impact

The DEIR's incorrect and unsubstantiated air model indicates a potentially significant GHG impact, when applying the "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year. As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 6,066 MT CO_2e/year (p. 3.6-21). Dividing the Project's GHG emissions, as estimated by the DEIR, by a service population value of 975 people, we find that the Project would emit approximately 6.2 MT CO_2e/SP/year (see table below).[58]

5-58

DEIR Service Population Efficiency	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**6,066**
Service Population	975
Service Population Efficiency	**6.2**
Threshold ***Exceed?***	2.6 ***Yes***

When we compare the Project's per service population GHG emissions to the AEP's "2030 Land Use Efficiency Threshold" of 2.6 MT CO_2e/SP/year, we find that the Project would result in a significant GHG impact not previously identified or addressed by the DEIR. Therefore, an updated EIR should be prepared and recirculated for the Project, and mitigation should be implemented where necessary.

Feasible Mitigation Measures Available to Reduce Emissions

5-59

Our analysis demonstrates that the Project's air quality, health risk, and GHG emissions may result in significant impacts and should be mitigated further. In an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project.

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[57] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 40.

[58] Calculated: (6,066 MT CO_2e/year) / (975 service population) = (6.2 MT CO_2e/SP/year).

Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*.[59] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[60]
Measures – Energy
Building Energy Use
Exceed Title-24 Building Envelope Energy Efficiency Standards (California Building Standards Code)
Install Programmable Thermostat Timers
Obtain Third-party HVAC Commissioning and Verification of Energy Savings
Install Energy Efficient Appliances
Install Energy Efficient Boilers
Lighting
Install Higher Efficacy Public Street and Area Lighting
Limit Outdoor Lighting Requirements
Replace Traffic Lights with LED Traffic Lights
Alternative Energy Generation
Establish Onsite Renewable or Carbon-Neutral Energy Systems
Establish Onsite Renewable Energy System – Solar Power
Establish Onsite Renewable Energy System – Wind Power
Utilize a Combined Heat and Power System
Establish Methane Recovery in Landfills
Establish Methane Recovery in Wastewater Treatment Plants
Measures – Transportation
Land Use/Location
Increase Density
Increase Location Efficiency
Increase Diversity of Urban and Suburban Developments (Mixed Use)
Increase Destination Accessibility
Increase Transit Accessibility
Integrate Affordable and Below Market Rate Housing

5-59

[59] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[60] "Quantifying Greenhouse Gas Mitigation Measures." California Air Pollution Control Officers Association (CAPCOA), August 2010, *available at:* http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, p.

Orient Project Toward Non-Auto Corridor
Locate Project near Bike Path/Bike Lane
Neighborhood/Site Enhancements
Provide Pedestrian Network Improvements, such as: • Compact, mixed-use communities • Interconnected street network • Narrower roadways and shorter block lengths • Sidewalks • Accessibility to transit and transit shelters • Traffic calming measures and street trees • Parks and public spaces • Minimize pedestrian barriers
Provide Traffic Calming Measures, such as: • Marked crosswalks • Count-down signal timers • Curb extensions • Speed tables • Raised crosswalks • Raised intersections • Median islands • Tight corner radii • Roundabouts or mini-circles • On-street parking • Planter strips with trees • Chicanes/chokers
Implement a Neighborhood Electric Vehicle (NEV) Network.
Create Urban Non-Motorized Zones
Incorporate Bike Lane Street Design (on-site)
Provide Bike Parking in Non-Residential Projects
Provide Bike Parking with Multi-Unit Residential Projects
Provide Electric Vehicle Parking
Dedicate Land for Bike Trails
Parking Policy/Pricing
Limit Parking Supply through: • Elimination (or reduction) of minimum parking requirements • Creation of maximum parking requirements • Provision of shared parking
Unbundle Parking Costs from Property Cost
Implement Market Price Public Parking (On-Street)
Require Residential Area Parking Permits

5-59

Commute Trip Reduction Programs
Implement Commute Trip Reduction (CTR) Program – Voluntary • Carpooling encouragement • Ride-matching assistance • Preferential carpool parking • Flexible work schedules for carpools • Half time transportation coordinator • Vanpool assistance • Bicycle end-trip facilities (parking, showers and lockers) • New employee orientation of trip reduction and alternative mode options • Event promotions and publications • Flexible work schedule for employees • Transit subsidies • Parking cash-out or priced parking • Shuttles • Emergency ride home
Implement Commute Trip Reduction (CTR) Program – Required Implementation/Monitoring • Established performance standards (e.g. trip reduction requirements) • Required implementation • Regular monitoring and reporting
Provide Ride-Sharing Programs • Designate a certain percentage of parking spaces for ride sharing vehicles • Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles • Providing a web site or messaging board for coordinating rides • Permanent transportation management association membership and funding requirement.
Implement Subsidized or Discounted Transit Program
Provide Ent of Trip Facilities, including: • Showers • Secure bicycle lockers • Changing spaces
Encourage Telecommuting and Alternative Work Schedules, such as: • Staggered starting times • Flexible schedules • Compressed work weeks
Implement Commute Trip Reduction Marketing, such as: • New employee orientation of trip reduction and alternative mode options • Event promotions • Publications
Implement Preferential Parking Permit Program
Implement Car-Sharing Program
Implement School Pool Program
Provide Employer-Sponsored Vanpool/Shuttle

5-59

Implement Bike-Sharing Programs
Implement School Bus Program
Price Workplace Parking, such as: • Explicitly charging for parking for its employees; • Implementing above market rate pricing; • Validating parking only for invited guests; • Not providing employee parking and transportation allowances; and • Educating employees about available alternatives.
Implement Employee Parking "Cash-Out"
Transit System Improvements
Transit System Improvements, including: • Grade-separated right-of-way, including bus only lanes (for buses, emergency vehicles, and sometimes taxis), and other Transit Priority measures. Some systems use guideways which automatically steer the bus on portions of the route. • Frequent, high-capacity service • High-quality vehicles that are easy to board, quiet, clean, and comfortable to ride. • Pre-paid fare collection to minimize boarding delays. • Integrated fare systems, allowing free or discounted transfers between routes and modes. • Convenient user information and marketing programs. • High quality bus stations with Transit Oriented Development in nearby areas. • Modal integration, with BRT service coordinated with walking and cycling facilities, taxi services, intercity bus, rail transit, and other transportation services.
Implement Transit Access Improvements, such as: • Sidewalk/crosswalk safety enhancements • Bus shelter improvements
Expand Transit Network
Increase Transit Service Frequency/Speed
Provide Bike Parking Near Transit
Provide Local Shuttles
Road Pricing/Management
Implement Area or Cordon Pricing
Improve Traffic Flow, such as: • Signalization improvements to reduce delay; • Incident management to increase response time to breakdowns and collisions; • Intelligent Transportation Systems (ITS) to provide real-time information regarding road conditions and directions; and • Speed management to reduce high free-flow speeds.
Required Project Contributions to Transportation Infrastructure Improvement Projects
Install Park-and-Ride Lots
Vehicles

5-59

Electrify Loading Docs and/or Require Idling-Reduction Systems
Utilize Alternative Fueled Vehicles, such as: • Biodiesel (B20) • Liquefied Natural Gas (LNG) • Compressed Natural Gas (CNG)
Utilize Electric or Hybrid Vehicles
Measures – Water
Water Supply
Use Reclaimed Water
Use Gray Water
Use Locally Sourced Water Supply
Water Use
Install Low-Flow Water Fixtures
Adopt a Water Conservation strategy
Design Water-Efficient Landscapes (see California Department of Water Resources Model Water Efficient Landscape Ordinance), such as: • Reducing lawn sizes; • Planting vegetation with minimal water needs, such as native species; • Choosing vegetation appropriate for the climate of the project site; • Choosing complimentary plants with similar water needs or which can provide each other with shade and/or water.
Use Water-Efficient Landscape Irrigation Systems (“Smart” irrigation control systems)
Reduce Turf in Landscapes and Lawns
Plant Native or Drought-Resistant Trees and Vegetation
Measures – Area Landscaping
Landscaping Equipment
Prohibit Gas Powered Landscape Equipment
Implement Lawnmower Exchange Program
Electric Yard Equipment Compatibility
Measures – Solid Waste
Solid Waste
Institute Recycling and Composting Services
Recycle Demolished Construction Material
Measures – Vegetation
Vegetation
Urban Tree Planting
Create New Vegetated Open Space
Measures – Construction

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Construction
Use Alternative Fuels for Construction Equipment
Urban Tree Planting
Use Electric and Hybrid Construction Equipment
Limit Construction Equipment Idling Beyond Regulation Requirements
Institute a Heavy-Duty Off-Road Vehicle Plan, including: • Construction vehicle inventory tracking system; • Requiring hour meters on equipment; • Document the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment; and • Daily logging of the operating hours of the equipment.
Implement a Construction Vehicle Inventory Tracking System
Measures – Miscellaneous
Miscellaneous
Establish a Carbon Sequestration Project, such as: • Geologic sequestration or carbon capture and storage techniques, in which CO_2 from point sources is captured and injected underground; • Terrestrial sequestration in which ecosystems are established or preserved to serve as CO_2 sinks; • Novel techniques involving advanced chemical or biological pathways; or • Technologies yet to be discovered.
Establish Off-Site Mitigation
Use Local and Sustainable Building Materials
Require best Management Practices in Agriculture and Animal Operations
Require Environmentally Responsible Purchasing, such as: • Purchasing products with sustainable packaging; • Purchasing post-consumer recycled copier paper, paper towels, and stationary; • Purchasing and stocking communal kitchens with reusable dishes and utensils; • Choosing sustainable cleaning supplies; • Leasing equipment from manufacturers who will recycle the components at their end of life; • Choosing ENERGY STAR appliances and Water Sense-certified water fixtures; • Choosing electronic appliances with built in sleep-mode timers; • Purchasing 'green power' (e.g. electricity generated from renewable or hydropower) from the utility; and • Choosing locally-made and distributed products.
Implement an Innovative Strategy for GHG Mitigation
Measures – General Plans
General Plans
Fund Incentives for Energy Efficiency, such as: • Retrofitting or designing new buildings, parking lots, streets, and public areas with energy-efficient lighting;

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• Retrofitting or designing new buildings with low-flow water fixtures and high-efficiency appliances; • Retrofitting or purchasing new low-emissions equipment; • Purchasing electric or hybrid vehicles; • Investing in renewable energy systems
Establish a Local Farmer's Market
Establish Community Gardens
Plant Urban Shade Trees
Implement Strategies to Reduce Urban Heat-Island Effect, such as: • Planting urban shade trees; • Installing reflective roofs; and • Using light-colored or high-albedo pavements and surfaces.

Furthermore, in an effort to reduce the Project's emissions, we identified several mitigation measures that are applicable to the proposed Project from NEDC's *Diesel Emission Controls in Construction Projects.*[61] Therefore, to reduce the Project's emissions, consideration of the following measures should be made:

5-59

NEDC's *Diesel Emission Controls in Construction Projects*[62]
Measures – Diesel Emission Control Technology
a. Diesel Onroad Vehicles All diesel nonroad vehicles on site for more than 10 total days must have either (1) engines that meet EPA onroad emissions standards or (2) emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
b. Diesel Generators All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85%.
c. Diesel Nonroad Construction Equipment i. All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site ii. All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85% for engines 50hp and greater and by a minimum of 20% for engines less than 50hp.
d. Upon confirming that the diesel vehicle, construction equipment, or generator has either an engine meeting Tier 4 non road emission standards or emission control technology, as specified above,

[61] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

[62] "Diesel Emission Controls in Construction Projects." Northeast Diesel Collaborative (NEDC), December 2010, *available at:* https://www.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf.

installed and functioning, the developer will issue a compliance sticker. All diesel vehicles, construction equipment, and generators on site shall display the compliance sticker in a visible, external location as designated by the developer.
e. Emission control technology shall be operated, maintained, and serviced as recommended by the emission control technology manufacturer.
f. All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[63] approved by the original engine manufacturer with sulfur content of 15 ppm or less.
Measures – Idling Requirements
During periods of inactivity, idling of diesel onroad vehicles and nonroad equipment shall be minimized and shall not exceed the time allowed under state and local laws.
Measures – Additional Diesel Requirements
a. Construction shall not proceed until the contractor submits a certified list of all diesel vehicles, construction equipment, and generators to be used on site. The list shall include the following: i. Contractor and subcontractor name and address, plus contact person responsible for the vehicles or equipment. ii. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. iii. For the emission control technology installed: technology type, serial number, make, model, manufacturer, EPA/CARB verification number/level, and installation date and hour-meter reading on installation date.
b. If the contractor subsequently needs to bring on site equipment not on the list, the contractor shall submit written notification within 24 hours that attests the equipment complies with all contract conditions and provide information.
c. All diesel equipment shall comply with all pertinent local, state, and federal regulations relative to exhaust emission controls and safety.
d. The contractor shall establish generator sites and truck-staging zones for vehicles waiting to load or unload material on site. Such zones shall be located where diesel emissions have the least impact on abutters, the general public, and especially sensitive receptors such as hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.
Reporting
a. For each onroad diesel vehicle, nonroad construction equipment, or generator, the contractor shall submit to the developer's representative a report prior to bringing said equipment on site that includes: i. Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number. ii. The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level. iii. The Certification Statement signed and printed on the contractor's letterhead.
b. The contractor shall submit to the developer's representative a monthly report that, for each onroad diesel vehicle, nonroad construction equipment, or generator onsite, includes: i. Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.

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[63] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf.

ii. Any problems with the equipment or emission controls.
iii. Certified copies of fuel deliveries for the time period that identify:
    1. Source of supply
    2. Quantity of fuel
    3. Quality of fuel, including sulfur content (percent by weight)

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These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. An updated EIR should be prepared to include all feasible mitigation measures, as well as include an updated health risk and GHG analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The updated EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

Disclaimer

5-60

SWAPE has received limited discovery regarding this project. 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.

Attachments A-E:	SWAPE GHG and VMT Calculations
Attachment F:	SWAPE Project CalEEMod Modeling
Attachment G:	SWAPE Project AERSCREEN Modeling
Attachment H:	Paul Rosenfeld CV
Attachment I:	Matt Hagemann CV

Attachment A

GHG CALCULATIONS: DEIR Modeling

Line (L)	Value	Unit
Total Emissions From Passenger and Light Duty Vehicles		
1	4,635.98	Annual Mobile Emissions (MT CO2e/year) (CalEEMod Output, Tbl. 2.2, Mitigated Operational).
2	79.65%	Passenger and Light-Duty VMT Fleet Mix
3	3,692.69	Passenger and Light Duty Vehicle Emissions (MT CO2e/year) [Calc: (L1*L2)]
4	22,304.05	Passenger and Light-Duty Vehicle Emissions (Total lbs CO2e/day) [Calc: (L3 converted into lbs) / (365 days)]
5	975	Service Population [804 residents + 171 long-term jobs]
6	22.88	Per Service Population Emissions (lbs CO2e/day/SP) [Calc: (L4/L5)]
Daily VMT Per Capita From Passenger and Light Duty Vehicles		
7	31,209	Project Total Daily VMT
8	79.65%	Passenger and Light-Duty VMT Fleet Mix
9	24,859	Daily VMT from Passenger & Light-Duty Vehicles [Calc: (L7*L8)]
10	975	Service Population [804 residents + 171 long-term jobs]
11	25.50	Daily VMT Per Capita [(Calc: L9/L10)]

CO_2e Per Capita Emissions from Passenger & Light-Duty Trucks,	
Exceedances under RTP/SCS Performance-Based SB 375 Goals	
Sources	**Project**
	DEIR Modeling
Annual Mobile Emissions (MT CO_2e/year)	4,635.98
Passenger & Light-Duty Fleet Mix (%)	79.65%
Daily CO_2e Emissions (lbs/day)	22,304.05
Service Population	975
Per Capita Emissions (lbs/day)	**22.88**
21.3 lbs/day/SP (2020 Goal) Exceeded?	**Yes**
18.8 lbs/day/SP (2035 Goal) Exceeded?	**Yes**

Attachment C

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under RTP/SCS Performance-Based SB 375 Target	
Sources	**Project DEIR Modeling**
Daily VMT from Auto & Light-Duty Vehicles	24,859
Service Population	975
Daily VMT Per Capita	25.50
2020 RTP/SCS Benchmarks, SCAG-Wide	
23.2 VMT (2016 Baseline) Exceed?	**Yes**
20.7 VMT (2045 Target) Exceed?	**Yes**
2020 RTP/SCS Benchmarks, Los Angeles County	
22.2 VMT (2016 Baseline) Exceed?	**Yes**
19.2 VMT (2045 Target) Exceed?	**Yes**

Attachment D

2017 Scoping Plan Daily VMT Per Capita						
	Los Angeles County			State		
Year	Population	LDV VMT Baseline	VMT Per Capita	Population	LDV VMT Baseline	VMT Per Capita
2010	9,838,771	216,979,221.64	22.05	37,335,085	836,463,980.50	22.40
2024	10,627,846	219,237,756.72	20.63	41,994,283	926,776,780.89	22.07
2030	10,868,614	215,539,586.12	19.83	43,939,250	957,178,153.20	21.78

Attachment E

Daily VMT Per Capita from Passenger & Light-Duty Trucks, Exceedances under 2017 Scoping Plan Performance-Based SB 375 Benchmarks	
Sources	**DEIR Modeling**
Daily VMT from Auto & Light-Duty Vehicles	24,859
Service Population	975
Daily VMT Per Capita	25.50
2017 Scoping Plan Benchmarks, Statewide	
22.40 VMT (2010 Baseline) Exceed?	**Yes**
22.07 VMT (2024 Projected) Exceed?	**Yes**
21.78 VMT (2030 Projected) Exceed?	**Yes**
2017 Scoping Plan Benchmarks, Los Angeles County Specific	
22.05 VMT (2010 Baseline) Exceed?	**Yes**
20.63 VMT (2024 Projected) Exceed?	**Yes**
19.83 VMT (2030 Projected) Exceed?	**Yes**

Pacific Square Construction Phase 1 - Full Mitigation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start date and end date.

Off-road Equipment - See SWAPE comment about unit amounts. Trenching equipment consistent with DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - See SWAPE comment about acres of grading values.

Trips and VMT - See SWAPE comment about worker, vendor, and hauling trip numbers.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	220.00	500.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	7.00
tblConstructionPhase	PhaseEndDate	5/12/2022	9/29/2023
tblConstructionPhase	PhaseEndDate	4/14/2022	7/31/2023
tblConstructionPhase	PhaseEndDate	6/10/2021	5/28/2021
tblConstructionPhase	PhaseEndDate	4/28/2022	8/30/2023
tblConstructionPhase	PhaseEndDate	6/2/2021	5/11/2021
tblConstructionPhase	PhaseStartDate	4/29/2022	8/31/2023

tblConstructionPhase	PhaseStartDate	6/11/2021	8/31/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	5/12/2021
tblConstructionPhase	PhaseStartDate	4/15/2022	8/1/2023
tblConstructionPhase	PhaseStartDate	5/29/2021	5/1/2021
tblGrading	MaterialExported	0.00	700.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes

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	0.2169	2.9807	1.6902	7.8400e-003	0.2703	0.0570	0.3272	0.0822	0.0540	0.1362	0.0000	741.1642	741.1642	0.0687	0.0000	742.8824
2022	0.3626	2.6562	2.9154	7.7100e-003	0.3180	0.0947	0.4127	0.0855	0.0907	0.1762	0.0000	684.7741	684.7741	0.0692	0.0000	686.5050
2023	0.9768	1.4782	1.7984	4.6700e-003	0.1910	0.0535	0.2446	0.0514	0.0511	0.1024	0.0000	414.6751	414.6751	0.0442	0.0000	415.7810
Maximum	**0.9768**	**2.9807**	**2.9154**	**7.8400e-003**	**0.3180**	**0.0947**	**0.4127**	**0.0855**	**0.0907**	**0.1762**	**0.0000**	**741.1642**	**741.1642**	**0.0692**	**0.0000**	**742.8824**

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	0.1108	2.0094	1.5228	7.8400e-003	0.2703	8.1800e-003	0.2784	0.0822	7.8700e-003	0.0900	0.0000	716.0366	716.0366	0.0655	0.0000	717.6730
2022	0.1472	0.8693	2.4073	7.7100e-003	0.3180	6.8900e-003	0.3248	0.0855	6.6600e-003	0.0922	0.0000	611.3678	611.3678	0.0605	0.0000	612.8792
2023	0.8533	0.4168	1.5282	4.6700e-003	0.1910	3.9700e-003	0.1950	0.0514	3.8600e-003	0.0552	0.0000	372.0430	372.0430	0.0396	0.0000	373.0326
Maximum	**0.8533**	**2.0094**	**2.4073**	**7.8400e-003**	**0.3180**	**8.1800e-003**	**0.3248**	**0.0855**	**7.8700e-003**	**0.0922**	**0.0000**	**716.0366**	**716.0366**	**0.0655**	**0.0000**	**717.6730**

Pacific Square Construction Phase 1 - Full Mitigation - 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	N20	CO2e
Percent Reduction	**28.61**	**53.68**	**14.77**	**0.00**	**0.00**	**90.72**	**18.91**	**0.00**	**90.61**	**42.77**	**0.00**	**7.67**	**7.67**	**9.18**	**0.00**	**7.67**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-1-2021**	**7-31-2021**	2.1814	1.8997
2	**8-1-2021**	**10-31-2021**	0.6011	0.1847
3	**11-1-2021**	**1-31-2022**	0.8061	0.2649
4	**2-1-2022**	**4-30-2022**	0.7360	0.2464
5	**5-1-2022**	**7-31-2022**	0.7578	0.2518
6	**8-1-2022**	**10-31-2022**	0.7594	0.2533
7	**11-1-2022**	**1-31-2023**	0.7344	0.2408
8	**2-1-2023**	**4-30-2023**	0.6561	0.2022
9	**5-1-2023**	**7-31-2023**	0.6755	0.2063
10	**8-1-2023**	**9-30-2023**	0.8708	0.7668
		Highest	2.1814	1.8997

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2623	0.0402	1.7737	1.7800e-003		0.1073	0.1073		0.1073	0.1073	11.2592	23.4346	34.6938	0.0353	7.6000e-004	35.8047
Energy	0.0199	0.1771	0.1216	1.0900e-003		0.0138	0.0138		0.0138	0.0138	0.0000	858.2379	858.2379	0.0311	9.2600e-003	861.7748
Mobile	1.2945	5.6432	14.8164	0.0526	4.3448	0.0408	4.3856	1.1646	0.0379	1.2025	0.0000	4,868.0242	4,868.0242	0.2512	0.0000	4,874.3036
Waste						0.0000	0.0000		0.0000	0.0000	57.9925	0.0000	57.9925	3.4273	0.0000	143.6739
Water						0.0000	0.0000		0.0000	0.0000	3.6004	69.2541	72.8545	0.3727	9.3200e-003	84.9491
Total	**2.5768**	**5.8604**	**16.7117**	**0.0555**	**4.3448**	**0.1618**	**4.5067**	**1.1646**	**0.1590**	**1.3236**	**72.8521**	**5,818.9507**	**5,891.8028**	**4.1175**	**0.0193**	**6,000.5062**

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	1.2623	0.0402	1.7737	1.7800e-003		0.1073	0.1073		0.1073	0.1073	11.2592	23.4346	34.6938	0.0353	7.6000e-004	35.8047
Energy	0.0199	0.1771	0.1216	1.0900e-003		0.0138	0.0138		0.0138	0.0138	0.0000	858.2379	858.2379	0.0311	9.2600e-003	861.7748
Mobile	1.2945	5.6432	14.8164	0.0526	4.3448	0.0408	4.3856	1.1646	0.0379	1.2025	0.0000	4,868.0242	4,868.0242	0.2512	0.0000	4,874.3036
Waste						0.0000	0.0000		0.0000	0.0000	57.9925	0.0000	57.9925	3.4273	0.0000	143.6739
Water						0.0000	0.0000		0.0000	0.0000	3.6004	69.2541	72.8545	0.3727	9.3200e-003	84.9491
Total	**2.5768**	**5.8604**	**16.7117**	**0.0555**	**4.3448**	**0.1618**	**4.5067**	**1.1646**	**0.1590**	**1.3236**	**72.8521**	**5,818.9507**	**5,891.8028**	**4.1175**	**0.0193**	**6,000.5062**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/11/2021	5	7	
2	Grading	Grading	5/12/2021	5/28/2021	5	13	
3	Drainage/Utilities/Trenching	Trenching	5/29/2021	8/30/2021	5	66	
4	Building Construction/Foundation	Building Construction	8/31/2021	7/31/2023	5	500	
5	Paving	Paving	8/1/2023	8/30/2023	5	22	
6	Architectural Coating	Architectural Coating	8/31/2023	9/29/2023	5	22	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped Parking Area: 13,232 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Building Construction/Foundation	Generator Sets	1	8.00	84	0.74
Building Construction/Foundation	Cranes	1	8.00	231	0.29
Building Construction/Foundation	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction/Foundation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction/Foundation	Welders	3	8.00	46	0.45

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
Drainage/Utilities/Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction/Foundati	8	191.00	56.00	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	38.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					0.0110	0.0000	0.0110	1.4200e-003	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4100e-003	0.0640	0.0376	9.0000e-005		2.4600e-003	2.4600e-003		2.2600e-003	2.2600e-003	0.0000	7.5343	7.5343	2.4400e-003	0.0000	7.5952
Total	**5.4100e-003**	**0.0640**	**0.0376**	**9.0000e-005**	**0.0110**	**2.4600e-003**	**0.0135**	**1.4200e-003**	**2.2600e-003**	**3.6800e-003**	**0.0000**	**7.5343**	**7.5343**	**2.4400e-003**	**0.0000**	**7.5952**

3.2 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	0.0505	1.6610	0.3873	4.6500e-003	0.1031	4.9700e-003	0.1081	0.0283	4.7600e-003	0.0331	0.0000	457.3777	457.3777	0.0318	0.0000	458.1714
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	1.2000e-004	9.0000e-005	1.0600e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2769	0.2769	1.0000e-005	0.0000	0.2771
Total	**0.0507**	**1.6611**	**0.3883**	**4.6500e-003**	**0.1034**	**4.9700e-003**	**0.1084**	**0.0284**	**4.7600e-003**	**0.0332**	**0.0000**	**457.6546**	**457.6546**	**0.0318**	**0.0000**	**458.4485**

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					0.0110	0.0000	0.0110	1.4200e-003	0.0000	1.4200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0500e-003	4.5600e-003	0.0415	9.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	7.5342	7.5342	2.4400e-003	0.0000	7.5952
Total	**1.0500e-003**	**4.5600e-003**	**0.0415**	**9.0000e-005**	**0.0110**	**1.4000e-004**	**0.0111**	**1.4200e-003**	**1.4000e-004**	**1.5600e-003**	**0.0000**	**7.5342**	**7.5342**	**2.4400e-003**	**0.0000**	**7.5952**

3.2 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	0.0505	1.6610	0.3873	4.6500e-003	0.1031	4.9700e-003	0.1081	0.0283	4.7600e-003	0.0331	0.0000	457.3777	457.3777	0.0318	0.0000	458.1714
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	1.2000e-004	9.0000e-005	1.0600e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2769	0.2769	1.0000e-005	0.0000	0.2771
Total	**0.0507**	**1.6611**	**0.3883**	**4.6500e-003**	**0.1034**	**4.9700e-003**	**0.1084**	**0.0284**	**4.7600e-003**	**0.0332**	**0.0000**	**457.6546**	**457.6546**	**0.0318**	**0.0000**	**458.4485**

3.3 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					0.0426	0.0000	0.0426	0.0219	0.0000	0.0219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0119	0.1314	0.0634	1.3000e-004		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	11.7675	11.7675	3.8100e-003	0.0000	11.8627
Total	**0.0119**	**0.1314**	**0.0634**	**1.3000e-004**	**0.0426**	**5.9500e-003**	**0.0486**	**0.0219**	**5.4800e-003**	**0.0274**	**0.0000**	**11.7675**	**11.7675**	**3.8100e-003**	**0.0000**	**11.8627**

3.3 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	3.7000e-004	0.0122	2.8400e-003	3.0000e-005	7.6000e-004	4.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.3541	3.3541	2.3000e-004	0.0000	3.3599
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	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	**6.5000e-004**	**0.0124**	**5.3000e-003**	**4.0000e-005**	**1.4700e-003**	**5.0000e-005**	**1.5100e-003**	**4.0000e-004**	**4.0000e-005**	**4.3000e-004**	**0.0000**	**3.9969**	**3.9969**	**2.5000e-004**	**0.0000**	**4.0032**

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					0.0426	0.0000	0.0426	0.0219	0.0000	0.0219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	7.1000e-003	0.0709	1.3000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	11.7675	11.7675	3.8100e-003	0.0000	11.8627
Total	**1.6400e-003**	**7.1000e-003**	**0.0709**	**1.3000e-004**	**0.0426**	**2.2000e-004**	**0.0429**	**0.0219**	**2.2000e-004**	**0.0221**	**0.0000**	**11.7675**	**11.7675**	**3.8100e-003**	**0.0000**	**11.8627**

3.3 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	3.7000e-004	0.0122	2.8400e-003	3.0000e-005	7.6000e-004	4.0000e-005	7.9000e-004	2.1000e-004	3.0000e-005	2.4000e-004	0.0000	3.3541	3.3541	2.3000e-004	0.0000	3.3599
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	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	**6.5000e-004**	**0.0124**	**5.3000e-003**	**4.0000e-005**	**1.4700e-003**	**5.0000e-005**	**1.5100e-003**	**4.0000e-004**	**4.0000e-005**	**4.3000e-004**	**0.0000**	**3.9969**	**3.9969**	**2.5000e-004**	**0.0000**	**4.0032**

3.4 Drainage/Utilities/Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0119	0.1233	0.1494	2.3000e-004		5.8600e-003	5.8600e-003		5.4400e-003	5.4400e-003	0.0000	19.7165	19.7165	5.9800e-003	0.0000	19.8661
Total	**0.0119**	**0.1233**	**0.1494**	**2.3000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4400e-003**	**5.4400e-003**	**0.0000**	**19.7165**	**19.7165**	**5.9800e-003**	**0.0000**	**19.8661**

3.4 Drainage/Utilities/Trenching - 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	1.1400e-003	8.8000e-004	9.9800e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6107	2.6107	8.0000e-005	0.0000	2.6127
Total	**1.1400e-003**	**8.8000e-004**	**9.9800e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.6107**	**2.6107**	**8.0000e-005**	**0.0000**	**2.6127**

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	2.5000e-003	0.0108	0.1539	2.3000e-004		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	19.7165	19.7165	5.9800e-003	0.0000	19.8661
Total	**2.5000e-003**	**0.0108**	**0.1539**	**2.3000e-004**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**19.7165**	**19.7165**	**5.9800e-003**	**0.0000**	**19.8661**

3.4 Drainage/Utilities/Trenching - 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	1.1400e-003	8.8000e-004	9.9800e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6107	2.6107	8.0000e-005	0.0000	2.6127
Total	**1.1400e-003**	**8.8000e-004**	**9.9800e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.6107**	**2.6107**	**8.0000e-005**	**0.0000**	**2.6127**

3.5 Building Construction/Foundation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0910	0.7132	0.6481	1.1100e-003		0.0364	0.0364		0.0349	0.0349	0.0000	92.4037	92.4037	0.0182	0.0000	92.8582
Total	**0.0910**	**0.7132**	**0.6481**	**1.1100e-003**		**0.0364**	**0.0364**		**0.0349**	**0.0349**	**0.0000**	**92.4037**	**92.4037**	**0.0182**	**0.0000**	**92.8582**

3.5 Building Construction/Foundation - 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	7.7400e-003	0.2459	0.0667	6.3000e-004	0.0157	5.0000e-004	0.0162	4.5300e-003	4.8000e-004	5.0100e-003	0.0000	61.4270	61.4270	3.7700e-003	0.0000	61.5211
Worker	0.0366	0.0285	0.3214	9.3000e-004	0.0931	7.7000e-004	0.0939	0.0247	7.1000e-004	0.0254	0.0000	84.0530	84.0530	2.4700e-003	0.0000	84.1148
Total	**0.0443**	**0.2744**	**0.3881**	**1.5600e-003**	**0.1088**	**1.2700e-003**	**0.1101**	**0.0293**	**1.1900e-003**	**0.0305**	**0.0000**	**145.4800**	**145.4800**	**6.2400e-003**	**0.0000**	**145.6360**

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	8.8200e-003	0.0382	0.4648	1.1100e-003		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	67.2762	67.2762	0.0149	0.0000	67.6488
Total	**8.8200e-003**	**0.0382**	**0.4648**	**1.1100e-003**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**	**0.0000**	**67.2762**	**67.2762**	**0.0149**	**0.0000**	**67.6488**

3.5 Building Construction/Foundation - 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	7.7400e-003	0.2459	0.0667	6.3000e-004	0.0157	5.0000e-004	0.0162	4.5300e-003	4.8000e-004	5.0100e-003	0.0000	61.4270	61.4270	3.7700e-003	0.0000	61.5211
Worker	0.0366	0.0285	0.3214	9.3000e-004	0.0931	7.7000e-004	0.0939	0.0247	7.1000e-004	0.0254	0.0000	84.0530	84.0530	2.4700e-003	0.0000	84.1148
Total	**0.0443**	**0.2744**	**0.3881**	**1.5600e-003**	**0.1088**	**1.2700e-003**	**0.1101**	**0.0293**	**1.1900e-003**	**0.0305**	**0.0000**	**145.4800**	**145.4800**	**6.2400e-003**	**0.0000**	**145.6360**

3.5 Building Construction/Foundation - 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	0.2412	1.8985	1.8659	3.2500e-003		0.0913	0.0913		0.0875	0.0875	0.0000	269.9841	269.9841	0.0521	0.0000	271.2863
Total	**0.2412**	**1.8985**	**1.8659**	**3.2500e-003**		**0.0913**	**0.0913**		**0.0875**	**0.0875**	**0.0000**	**269.9841**	**269.9841**	**0.0521**	**0.0000**	**271.2863**

3.5 Building Construction/Foundation - 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	0.0212	0.6826	0.1843	1.8300e-003	0.0459	1.2800e-003	0.0471	0.0132	1.2200e-003	0.0145	0.0000	177.8734	177.8734	0.0106	0.0000	178.1390
Worker	0.1002	0.0751	0.8652	2.6200e-003	0.2721	2.1700e-003	0.2743	0.0723	2.0000e-003	0.0743	0.0000	236.9166	236.9166	6.5200e-003	0.0000	237.0798
Total	**0.1214**	**0.7577**	**1.0495**	**4.4500e-003**	**0.3180**	**3.4500e-003**	**0.3214**	**0.0855**	**3.2200e-003**	**0.0887**	**0.0000**	**414.7900**	**414.7900**	**0.0171**	**0.0000**	**415.2187**

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	0.0258	0.1116	1.3578	3.2500e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	196.5779	196.5779	0.0433	0.0000	197.6605
Total	**0.0258**	**0.1116**	**1.3578**	**3.2500e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**196.5779**	**196.5779**	**0.0433**	**0.0000**	**197.6605**

3.5 Building Construction/Foundation - 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	0.0212	0.6826	0.1843	1.8300e-003	0.0459	1.2800e-003	0.0471	0.0132	1.2200e-003	0.0145	0.0000	177.8734	177.8734	0.0106	0.0000	178.1390
Worker	0.1002	0.0751	0.8652	2.6200e-003	0.2721	2.1700e-003	0.2743	0.0723	2.0000e-003	0.0743	0.0000	236.9166	236.9166	6.5200e-003	0.0000	237.0798
Total	**0.1214**	**0.7577**	**1.0495**	**4.4500e-003**	**0.3180**	**3.4500e-003**	**0.3214**	**0.0855**	**3.2200e-003**	**0.0887**	**0.0000**	**414.7900**	**414.7900**	**0.0171**	**0.0000**	**415.2187**

3.5 Building Construction/Foundation - 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	0.1294	1.0286	1.0732	1.8900e-003		0.0463	0.0463		0.0444	0.0444	0.0000	156.8151	156.8151	0.0297	0.0000	157.5565
Total	**0.1294**	**1.0286**	**1.0732**	**1.8900e-003**		**0.0463**	**0.0463**		**0.0444**	**0.0444**	**0.0000**	**156.8151**	**156.8151**	**0.0297**	**0.0000**	**157.5565**

3.5 Building Construction/Foundation - 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	9.1500e-003	0.2995	0.0960	1.0300e-003	0.0266	3.5000e-004	0.0270	7.6900e-003	3.3000e-004	8.0200e-003	0.0000	100.0693	100.0693	5.4500e-003	0.0000	100.2057
Worker	0.0547	0.0395	0.4620	1.4700e-003	0.1580	1.2300e-003	0.1593	0.0420	1.1300e-003	0.0431	0.0000	132.5589	132.5589	3.4100e-003	0.0000	132.6443
Total	**0.0639**	**0.3390**	**0.5581**	**2.5000e-003**	**0.1847**	**1.5800e-003**	**0.1862**	**0.0497**	**1.4600e-003**	**0.0511**	**0.0000**	**232.6283**	**232.6283**	**8.8600e-003**	**0.0000**	**232.8499**

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	0.0150	0.0648	0.7886	1.8900e-003		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	114.1830	114.1830	0.0250	0.0000	114.8081
Total	**0.0150**	**0.0648**	**0.7886**	**1.8900e-003**		**1.9900e-003**	**1.9900e-003**		**1.9900e-003**	**1.9900e-003**	**0.0000**	**114.1830**	**114.1830**	**0.0250**	**0.0000**	**114.8081**

3.5 Building Construction/Foundation - 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	9.1500e-003	0.2995	0.0960	1.0300e-003	0.0266	3.5000e-004	0.0270	7.6900e-003	3.3000e-004	8.0200e-003	0.0000	100.0693	100.0693	5.4500e-003	0.0000	100.2057
Worker	0.0547	0.0395	0.4620	1.4700e-003	0.1580	1.2300e-003	0.1593	0.0420	1.1300e-003	0.0431	0.0000	132.5589	132.5589	3.4100e-003	0.0000	132.6443
Total	**0.0639**	**0.3390**	**0.5581**	**2.5000e-003**	**0.1847**	**1.5800e-003**	**0.1862**	**0.0497**	**1.4600e-003**	**0.0511**	**0.0000**	**232.6283**	**232.6283**	**8.8600e-003**	**0.0000**	**232.8499**

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	9.6800e-003	0.0947	0.1285	2.0000e-004		4.7700e-003	4.7700e-003		4.4000e-003	4.4000e-003	0.0000	17.0641	17.0641	5.4100e-003	0.0000	17.1993
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.6800e-003**	**0.0947**	**0.1285**	**2.0000e-004**		**4.7700e-003**	**4.7700e-003**		**4.4000e-003**	**4.4000e-003**	**0.0000**	**17.0641**	**17.0641**	**5.4100e-003**	**0.0000**	**17.1993**

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	6.3000e-004	4.5000e-004	5.2900e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5168	1.5168	4.0000e-005	0.0000	1.5177
Total	**6.3000e-004**	**4.5000e-004**	**5.2900e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.5168**	**1.5168**	**4.0000e-005**	**0.0000**	**1.5177**

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	2.3100e-003	0.0100	0.1427	2.0000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	17.0641	17.0641	5.4100e-003	0.0000	17.1993
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3100e-003**	**0.0100**	**0.1427**	**2.0000e-004**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**17.0641**	**17.0641**	**5.4100e-003**	**0.0000**	**17.1993**

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	6.3000e-004	4.5000e-004	5.2900e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5168	1.5168	4.0000e-005	0.0000	1.5177
Total	**6.3000e-004**	**4.5000e-004**	**5.2900e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.5168**	**1.5168**	**4.0000e-005**	**0.0000**	**1.5177**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1100e-003	0.0143	0.0199	3.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	2.8086	2.8086	1.7000e-004	0.0000	2.8128
Total	**0.7717**	**0.0143**	**0.0199**	**3.0000e-005**		**7.8000e-004**	**7.8000e-004**		**7.8000e-004**	**7.8000e-004**	**0.0000**	**2.8086**	**2.8086**	**1.7000e-004**	**0.0000**	**2.8128**

3.7 Architectural Coating - 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	1.5900e-003	1.1400e-003	0.0134	4.0000e-005	4.5800e-003	4.0000e-005	4.6200e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.8424	3.8424	1.0000e-004	0.0000	3.8449
Total	**1.5900e-003**	**1.1400e-003**	**0.0134**	**4.0000e-005**	**4.5800e-003**	**4.0000e-005**	**4.6200e-003**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.8424**	**3.8424**	**1.0000e-004**	**0.0000**	**3.8449**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3000e-004	1.4200e-003	0.0202	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.8086	2.8086	1.7000e-004	0.0000	2.8128
Total	**0.7699**	**1.4200e-003**	**0.0202**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.8086**	**2.8086**	**1.7000e-004**	**0.0000**	**2.8128**

3.7 Architectural Coating - 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	1.5900e-003	1.1400e-003	0.0134	4.0000e-005	4.5800e-003	4.0000e-005	4.6200e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.8424	3.8424	1.0000e-004	0.0000	3.8449
Total	**1.5900e-003**	**1.1400e-003**	**0.0134**	**4.0000e-005**	**4.5800e-003**	**4.0000e-005**	**4.6200e-003**	**1.2200e-003**	**3.0000e-005**	**1.2500e-003**	**0.0000**	**3.8424**	**3.8424**	**1.0000e-004**	**0.0000**	**3.8449**

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	1.2945	5.6432	14.8164	0.0526	4.3448	0.0408	4.3856	1.1646	0.0379	1.2025	0.0000	4,868.0242	4,868.0242	0.2512	0.0000	4,874.3036
Unmitigated	1.2945	5.6432	14.8164	0.0526	4.3448	0.0408	4.3856	1.1646	0.0379	1.2025	0.0000	4,868.0242	4,868.0242	0.2512	0.0000	4,874.3036

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	704.90	677.34	621.16	2,354,418	2,354,418
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,045.40	3,932.40	2825.00	6,981,419	6,981,419
General Office Building	37.31	8.32	3.55	91,327	91,327
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	265.23	330.36	275.02	376,054	376,054
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	5,884.53	5,484.13	4,405.90	11,447,639	11,447,639

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pacific Square Construction Phase 1 - Full Mitigation - 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	660.9472	660.9472	0.0273	5.6500e-003	663.3117
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	660.9472	660.9472	0.0273	5.6500e-003	663.3117
NaturalGas Mitigated	0.0199	0.1771	0.1216	1.0900e-003		0.0138	0.0138		0.0138	0.0138	0.0000	197.2907	197.2907	3.7800e-003	3.6200e-003	198.4631
NaturalGas Unmitigated	0.0199	0.1771	0.1216	1.0900e-003		0.0138	0.0138		0.0138	0.0138	0.0000	197.2907	197.2907	3.7800e-003	3.6200e-003	198.4631

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 Mid Rise	1.41999e+006	7.6600e-003	0.0654	0.0278	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7763	75.7763	1.4500e-003	1.3900e-003	76.2266
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.30379e+006	7.0300e-003	0.0639	0.0537	3.8000e-004		4.8600e-003	4.8600e-003		4.8600e-003	4.8600e-003	0.0000	69.5754	69.5754	1.3300e-003	1.2800e-003	69.9889
General Office Building	35217	1.9000e-004	1.7300e-003	1.4500e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8793	1.8793	4.0000e-005	3.0000e-005	1.8905
Health Club	456717	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3722	24.3722	4.7000e-004	4.5000e-004	24.5170
High Turnover (Sit Down Restaurant)	481365	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6875	25.6875	4.9000e-004	4.7000e-004	25.8401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0199**	**0.1771**	**0.1216**	**1.0800e-003**		**0.0138**	**0.0138**		**0.0138**	**0.0138**	**0.0000**	**197.2907**	**197.2907**	**3.7800e-003**	**3.6200e-003**	**198.4631**

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 Mid Rise	1.41999e+006	7.6600e-003	0.0654	0.0278	4.2000e-004		5.2900e-003	5.2900e-003		5.2900e-003	5.2900e-003	0.0000	75.7763	75.7763	1.4500e-003	1.3900e-003	76.2266
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.30379e+006	7.0300e-003	0.0639	0.0537	3.8000e-004		4.8600e-003	4.8600e-003		4.8600e-003	4.8600e-003	0.0000	69.5754	69.5754	1.3300e-003	1.2800e-003	69.9889
General Office Building	35217	1.9000e-004	1.7300e-003	1.4500e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8793	1.8793	4.0000e-005	3.0000e-005	1.8905
Health Club	456717	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3722	24.3722	4.7000e-004	4.5000e-004	24.5170
High Turnover (Sit Down Restaurant)	481365	2.6000e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	25.6875	25.6875	4.9000e-004	4.7000e-004	25.8401
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0199**	**0.1771**	**0.1216**	**1.0800e-003**		**0.0138**	**0.0138**		**0.0138**	**0.0138**	**0.0000**	**197.2907**	**197.2907**	**3.7800e-003**	**3.6200e-003**	**198.4631**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	429106	136.7224	5.6400e-003	1.1700e-003	137.2115
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	979792	312.1827	0.0129	2.6700e-003	313.2996
Fast Food Restaurant w/o Drive Thru	249391	79.4613	3.2800e-003	6.8000e-004	79.7456
General Office Building	43945.2	14.0019	5.8000e-004	1.2000e-004	14.0520
Health Club	280086	89.2415	3.6800e-003	7.6000e-004	89.5608
High Turnover (Sit Down Restaurant)	92076	29.3374	1.2100e-003	2.5000e-004	29.4424
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**660.9472**	**0.0273**	**5.6500e-003**	**663.3117**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	429106	136.7224	5.6400e-003	1.1700e-003	137.2115
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	979792	312.1827	0.0129	2.6700e-003	313.2996
Fast Food Restaurant w/o Drive Thru	249391	79.4613	3.2800e-003	6.8000e-004	79.7456
General Office Building	43945.2	14.0019	5.8000e-004	1.2000e-004	14.0520
Health Club	280086	89.2415	3.6800e-003	7.6000e-004	89.5608
High Turnover (Sit Down Restaurant)	92076	29.3374	1.2100e-003	2.5000e-004	29.4424
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**660.9472**	**0.0273**	**5.6500e-003**	**663.3117**

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	1.2623	0.0402	1.7737	1.7800e-003		0.1073	0.1073		0.1073	0.1073	11.2592	23.4346	34.6938	0.0353	7.6000e-004	35.8047
Unmitigated	1.2623	0.0402	1.7737	1.7800e-003		0.1073	0.1073		0.1073	0.1073	11.2592	23.4346	34.6938	0.0353	7.6000e-004	35.8047

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	0.0770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8046					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3472	0.0275	0.6738	1.7200e-003		0.1012	0.1012		0.1012	0.1012	11.2592	21.6364	32.8956	0.0336	7.6000e-004	33.9627
Landscaping	0.0335	0.0127	1.0999	6.0000e-005		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	1.7982	1.7982	1.7500e-003	0.0000	1.8420
Total	**1.2623**	**0.0402**	**1.7737**	**1.7800e-003**		**0.1073**	**0.1073**		**0.1073**	**0.1073**	**11.2592**	**23.4346**	**34.6938**	**0.0353**	**7.6000e-004**	**35.8047**

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	0.0770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8046					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.3472	0.0275	0.6738	1.7200e-003		0.1012	0.1012		0.1012	0.1012	11.2592	21.6364	32.8956	0.0336	7.6000e-004	33.9627
Landscaping	0.0335	0.0127	1.0999	6.0000e-005		6.0700e-003	6.0700e-003		6.0700e-003	6.0700e-003	0.0000	1.7982	1.7982	1.7500e-003	0.0000	1.8420
Total	**1.2623**	**0.0402**	**1.7737**	**1.7800e-003**		**0.1073**	**0.1073**		**0.1073**	**0.1073**	**11.2592**	**23.4346**	**34.6938**	**0.0353**	**7.6000e-004**	**35.8047**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	72.8545	0.3727	9.3200e-003	84.9491
Unmitigated	72.8545	0.3727	9.3200e-003	84.9491

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.90633 / 4.35399	46.2564	0.2269	5.6900e-003	53.6236
City Park	0 / 0.476593	1.6871	7.0000e-005	1.0000e-005	1.6931
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.71497 / 0.109466	8.0466	0.0562	1.3800e-003	9.8637
General Office Building	0.60074 / 0.368196	3.9863	0.0197	4.9000e-004	4.6270
Health Club	1.49218 / 0.914563	9.9016	0.0490	1.2300e-003	11.4930
High Turnover (Sit Down Restaurant)	0.634385 / 0.0404927	2.9765	0.0208	5.1000e-004	3.6487
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**72.8545**	**0.3727**	**9.3100e-003**	**84.9491**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.90633 / 4.35399	46.2564	0.2269	5.6900e-003	53.6236
City Park	0 / 0.476593	1.6871	7.0000e-005	1.0000e-005	1.6931
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.71497 / 0.109466	8.0466	0.0562	1.3800e-003	9.8637
General Office Building	0.60074 / 0.368196	3.9863	0.0197	4.9000e-004	4.6270
Health Club	1.49218 / 0.914563	9.9016	0.0490	1.2300e-003	11.4930
High Turnover (Sit Down Restaurant)	0.634385 / 0.0404927	2.9765	0.0208	5.1000e-004	3.6487
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**72.8545**	**0.3727**	**9.3100e-003**	**84.9491**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.9925	3.4273	0.0000	143.6739
Unmitigated	57.9925	3.4273	0.0000	143.6739

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	48.76	9.8978	0.5850	0.0000	24.5215
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	65.08	13.2107	0.7807	0.0000	32.7288
General Office Building	3.14	0.6374	0.0377	0.0000	1.5791
Health Club	143.81	29.1921	1.7252	0.0000	72.3223
High Turnover (Sit Down Restaurant)	24.87	5.0484	0.2984	0.0000	12.5072
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**57.9925**	**3.4273**	**0.0000**	**143.6739**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	48.76	9.8978	0.5850	0.0000	24.5215
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	65.08	13.2107	0.7807	0.0000	32.7288
General Office Building	3.14	0.6374	0.0377	0.0000	1.5791
Health Club	143.81	29.1921	1.7252	0.0000	72.3223
High Turnover (Sit Down Restaurant)	24.87	5.0484	0.2984	0.0000	12.5072
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**57.9925**	**3.4273**	**0.0000**	**143.6739**

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

Pacific Square Construction Phase 1 - Full Mitigation

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start date and end date.

Off-road Equipment - See SWAPE comment about unit amounts. Trenching equipment consistent with DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - See SWAPE comment about acres of grading values.

Trips and VMT - See SWAPE comment about worker, vendor, and hauling trip numbers.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	220.00	500.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	7.00
tblConstructionPhase	PhaseEndDate	5/12/2022	9/29/2023
tblConstructionPhase	PhaseEndDate	4/14/2022	7/31/2023
tblConstructionPhase	PhaseEndDate	6/10/2021	5/28/2021
tblConstructionPhase	PhaseEndDate	4/28/2022	8/30/2023
tblConstructionPhase	PhaseEndDate	6/2/2021	5/11/2021
tblConstructionPhase	PhaseStartDate	4/29/2022	8/31/2023

tblConstructionPhase	PhaseStartDate	6/11/2021	8/31/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	5/12/2021
tblConstructionPhase	PhaseStartDate	4/15/2022	8/1/2023
tblConstructionPhase	PhaseStartDate	5/29/2021	5/1/2021
tblGrading	MaterialExported	0.00	700.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes

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	15.8741	478.1557	118.8925	1.3628	33.2060	2.1141	35.3201	8.6470	1.9967	10.6437	0.0000	147,569.0597	147,569.0597	10.6175	0.0000	147,834.4964
2022	2.7822	20.2828	22.7957	0.0603	2.4935	0.7286	3.2221	0.6694	0.6978	1.3672	0.0000	5,913.7428	5,913.7428	0.5872	0.0000	5,928.4217
2023	70.2985	18.0070	21.9653	0.0591	2.4935	0.6344	3.1279	0.6694	0.6073	1.2767	0.0000	5,789.1055	5,789.1055	0.5628	0.0000	5,803.1756
Maximum	**70.2985**	**478.1557**	**118.8925**	**1.3628**	**33.2060**	**2.1141**	**35.3201**	**8.6470**	**1.9967**	**10.6437**	**0.0000**	**147,569.0597**	**147,569.0597**	**10.6175**	**0.0000**	**147,834.4964**

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	14.6286	461.1729	120.0024	1.3628	33.2060	1.4523	34.6583	8.6470	1.3911	10.0381	0.0000	147,569.0597	147,569.0597	10.6175	0.0000	147,834.4964
2022	1.1248	6.5373	18.8874	0.0603	2.4935	0.0529	2.5463	0.6694	0.0511	0.7205	0.0000	5,291.3096	5,291.3096	0.5127	0.0000	5,304.1265
2023	70.1365	5.2416	18.1958	0.0591	2.4935	0.0472	2.5407	0.6694	0.0457	0.7151	0.0000	5,166.6723	5,166.6723	0.5461	0.0000	5,179.0448
Maximum	**70.1365**	**461.1729**	**120.0024**	**1.3628**	**33.2060**	**1.4523**	**34.6583**	**8.6470**	**1.3911**	**10.0381**	**0.0000**	**147,569.0597**	**147,569.0597**	**10.6175**	**0.0000**	**147,834.4964**

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Summer

	ROG	NOx	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	**3.45**	**8.42**	**4.01**	**0.00**	**0.00**	**55.36**	**4.62**	**0.00**	**54.94**	**13.65**	**0.00**	**0.78**	**0.78**	**0.78**	**0.00**	**0.78**

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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	8.0307	31.8368	88.2569	0.3170	25.7487	0.2367	25.9854	6.8905	0.2200	7.1105		32,319.4529	32,319.4529	1.6125		32,359.7665
Total	**41.0147**	**35.1076**	**151.6286**	**0.4610**	**25.7487**	**8.4579**	**34.2066**	**6.8905**	**8.4413**	**15.3318**	**992.8934**	**35,434.9585**	**36,427.8519**	**4.6118**	**0.0892**	**36,569.7401**

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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	8.0307	31.8368	88.2569	0.3170	25.7487	0.2367	25.9854	6.8905	0.2200	7.1105		32,319.4529	32,319.4529	1.6125		32,359.7665
Total	**41.0147**	**35.1076**	**151.6286**	**0.4610**	**25.7487**	**8.4579**	**34.2066**	**6.8905**	**8.4413**	**15.3318**	**992.8934**	**35,434.9585**	**36,427.8519**	**4.6118**	**0.0892**	**36,569.7401**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/11/2021	5	7	
2	Grading	Grading	5/12/2021	5/28/2021	5	13	
3	Drainage/Utilities/Trenching	Trenching	5/29/2021	8/30/2021	5	66	
4	Building Construction/Foundation	Building Construction	8/31/2021	7/31/2023	5	500	
5	Paving	Paving	8/1/2023	8/30/2023	5	22	
6	Architectural Coating	Architectural Coating	8/31/2023	9/29/2023	5	22	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped Parking Area: 13,232 (Architectural Coating – sqft)

OffRoad Equipment

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Building Construction/Foundation	Generator Sets	1	8.00	84	0.74
Building Construction/Foundation	Cranes	1	8.00	231	0.29
Building Construction/Foundation	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction/Foundation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction/Foundation	Welders	3	8.00	46	0.45

Trips and VMT

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Drainage/Utilities/Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction/Foundati	8	191.00	56.00	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	38.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					3.1417	0.0000	3.1417	0.4066	0.0000	0.4066			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**3.1417**	**0.7019**	**3.8436**	**0.4066**	**0.6457**	**1.0524**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

3.2 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	14.2935	459.8459	107.8207	1.3374	29.9749	1.4115	31.3864	8.2167	1.3504	9.5670		145,105.0749	145,105.0749	9.8474		145,351.2586
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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**14.3278**	**459.8695**	**108.1430**	**1.3383**	**30.0644**	**1.4122**	**31.4765**	**8.2404**	**1.3510**	**9.5914**		**145,196.1765**	**145,196.1765**	**9.8500**		**145,442.4273**

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					3.1417	0.0000	3.1417	0.4066	0.0000	0.4066			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**3.1417**	**0.0401**	**3.1818**	**0.4066**	**0.0401**	**0.4467**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

3.2 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	14.2935	459.8459	107.8207	1.3374	29.9749	1.4115	31.3864	8.2167	1.3504	9.5670		145,105.0749	145,105.0749	9.8474		145,351.2586
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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**14.3278**	**459.8695**	**108.1430**	**1.3383**	**30.0644**	**1.4122**	**31.4765**	**8.2404**	**1.3510**	**9.5914**		**145,196.1765**	**145,196.1765**	**9.8500**		**145,442.4273**

3.3 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					6.5584	0.0000	6.5584	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5584**	**0.9158**	**7.4742**	**3.3684**	**0.8425**	**4.2109**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.3 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	0.0564	1.8158	0.4258	5.2800e-003	0.1184	5.5700e-003	0.1239	0.0325	5.3300e-003	0.0378		572.9790	572.9790	0.0389		573.9511
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	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0993**	**1.8453**	**0.8285**	**6.4200e-003**	**0.2301**	**6.4700e-003**	**0.2366**	**0.0621**	**6.1600e-003**	**0.0683**		**686.8560**	**686.8560**	**0.0422**		**687.9120**

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					6.5584	0.0000	6.5584	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**6.5584**	**0.0336**	**6.5921**	**3.3684**	**0.0336**	**3.4020**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.3 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	0.0564	1.8158	0.4258	5.2800e-003	0.1184	5.5700e-003	0.1239	0.0325	5.3300e-003	0.0378		572.9790	572.9790	0.0389		573.9511
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	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0993**	**1.8453**	**0.8285**	**6.4200e-003**	**0.2301**	**6.4700e-003**	**0.2366**	**0.0621**	**6.1600e-003**	**0.0683**		**686.8560**	**686.8560**	**0.0422**		**687.9120**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7371	4.5261	6.9200e-003		0.1777	0.1777		0.1649	0.1649		658.5986	658.5986	0.1998		663.5945
Total	**0.3605**	**3.7371**	**4.5261**	**6.9200e-003**		**0.1777**	**0.1777**		**0.1649**	**0.1649**		**658.5986**	**658.5986**	**0.1998**		**663.5945**

3.4 Drainage/Utilities/Trenching - 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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**0.0343**	**0.0236**	**0.3222**	**9.1000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**91.1016**	**91.1016**	**2.6800e-003**		**91.1687**

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	0.0756	0.3278	4.6643	6.9200e-003		0.0101	0.0101		0.0101	0.0101	0.0000	658.5986	658.5986	0.1998		663.5945
Total	**0.0756**	**0.3278**	**4.6643**	**6.9200e-003**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**658.5986**	**658.5986**	**0.1998**		**663.5945**

3.4 Drainage/Utilities/Trenching - 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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**0.0343**	**0.0236**	**0.3222**	**9.1000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**91.1016**	**91.1016**	**2.6800e-003**		**91.1687**

3.5 Building Construction/Foundation - 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					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

3.5 Building Construction/Foundation - 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	0.1702	5.4370	1.4214	0.0144	0.3585	0.0111	0.3696	0.1032	0.0106	0.1139		1,539.3315	1,539.3315	0.0907		1,541.5987
Worker	0.8187	0.5628	7.6930	0.0218	2.1349	0.0173	2.1522	0.5662	0.0159	0.5821		2,175.0504	2,175.0504	0.0641		2,176.6526
Total	**0.9890**	**5.9998**	**9.1144**	**0.0362**	**2.4935**	**0.0284**	**2.5218**	**0.6694**	**0.0265**	**0.6959**		**3,714.3820**	**3,714.3820**	**0.1548**		**3,718.2513**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.5023	1,666.5023	0.3693		1,675.7341
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.5023**	**1,666.5023**	**0.3693**		**1,675.7341**

3.5 Building Construction/Foundation - 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	0.1702	5.4370	1.4214	0.0144	0.3585	0.0111	0.3696	0.1032	0.0106	0.1139		1,539.3315	1,539.3315	0.0907		1,541.5987
Worker	0.8187	0.5628	7.6930	0.0218	2.1349	0.0173	2.1522	0.5662	0.0159	0.5821		2,175.0504	2,175.0504	0.0641		2,176.6526
Total	**0.9890**	**5.9998**	**9.1144**	**0.0362**	**2.4935**	**0.0284**	**2.5218**	**0.6694**	**0.0265**	**0.6959**		**3,714.3820**	**3,714.3820**	**0.1548**		**3,718.2513**

3.5 Building Construction/Foundation - 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

3.5 Building Construction/Foundation - 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	0.1598	5.1705	1.3448	0.0143	0.3585	9.7200e-003	0.3683	0.1032	9.2900e-003	0.1125		1,525.9210	1,525.9210	0.0876		1,528.1101
Worker	0.7669	0.5083	7.0976	0.0211	2.1349	0.0167	2.1516	0.5662	0.0154	0.5816		2,098.5405	2,098.5405	0.0579		2,099.9885
Total	**0.9267**	**5.6788**	**8.4425**	**0.0353**	**2.4935**	**0.0264**	**2.5199**	**0.6694**	**0.0247**	**0.6941**		**3,624.4615**	**3,624.4615**	**0.1455**		**3,628.0987**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.8481	1,666.8481	0.3672		1,676.0279
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.8481**	**1,666.8481**	**0.3672**		**1,676.0279**

3.5 Building Construction/Foundation - 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	0.1598	5.1705	1.3448	0.0143	0.3585	9.7200e-003	0.3683	0.1032	9.2900e-003	0.1125		1,525.9210	1,525.9210	0.0876		1,528.1101
Worker	0.7669	0.5083	7.0976	0.0211	2.1349	0.0167	2.1516	0.5662	0.0154	0.5816		2,098.5405	2,098.5405	0.0579		2,099.9885
Total	**0.9267**	**5.6788**	**8.4425**	**0.0353**	**2.4935**	**0.0264**	**2.5199**	**0.6694**	**0.0247**	**0.6941**		**3,624.4615**	**3,624.4615**	**0.1455**		**3,628.0987**

3.5 Building Construction/Foundation - 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

3.5 Building Construction/Foundation - 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	0.1185	3.9232	1.2146	0.0138	0.3585	4.5300e-003	0.3631	0.1032	4.3300e-003	0.1076		1,477.8816	1,477.8816	0.0776		1,479.8216
Worker	0.7202	0.4599	6.5363	0.0203	2.1349	0.0162	2.1512	0.5662	0.0150	0.5811		2,021.7006	2,021.7006	0.0522		2,023.0062
Total	**0.8387**	**4.3831**	**7.7508**	**0.0341**	**2.4935**	**0.0208**	**2.5142**	**0.6694**	**0.0193**	**0.6887**		**3,499.5822**	**3,499.5822**	**0.1298**		**3,502.8277**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,667.0901	1,667.0901	0.3651		1,676.2171
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,667.0901**	**1,667.0901**	**0.3651**		**1,676.2171**

3.5 Building Construction/Foundation - 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	0.1185	3.9232	1.2146	0.0138	0.3585	4.5300e-003	0.3631	0.1032	4.3300e-003	0.1076		1,477.8816	1,477.8816	0.0776		1,479.8216
Worker	0.7202	0.4599	6.5363	0.0203	2.1349	0.0162	2.1512	0.5662	0.0150	0.5811		2,021.7006	2,021.7006	0.0522		2,023.0062
Total	**0.8387**	**4.3831**	**7.7508**	**0.0341**	**2.4935**	**0.0208**	**2.5142**	**0.6694**	**0.0193**	**0.6887**		**3,499.5822**	**3,499.5822**	**0.1298**		**3,502.8277**

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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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	0.2104	0.9117	12.9737	0.0179		0.0281	0.0281		0.0281	0.0281	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0179**		**0.0281**	**0.0281**		**0.0281**	**0.0281**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

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**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.9635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**70.1552**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 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	0.1433	0.0915	1.3004	4.0400e-003	0.4248	3.2300e-003	0.4280	0.1127	2.9700e-003	0.1156		402.2232	402.2232	0.0104		402.4829
Total	**0.1433**	**0.0915**	**1.3004**	**4.0400e-003**	**0.4248**	**3.2300e-003**	**0.4280**	**0.1127**	**2.9700e-003**	**0.1156**		**402.2232**	**402.2232**	**0.0104**		**402.4829**

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	69.9635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**69.9932**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 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	0.1433	0.0915	1.3004	4.0400e-003	0.4248	3.2300e-003	0.4280	0.1127	2.9700e-003	0.1156		402.2232	402.2232	0.0104		402.4829
Total	**0.1433**	**0.0915**	**1.3004**	**4.0400e-003**	**0.4248**	**3.2300e-003**	**0.4280**	**0.1127**	**2.9700e-003**	**0.1156**		**402.2232**	**402.2232**	**0.0104**		**402.4829**

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	8.0307	31.8368	88.2569	0.3170	25.7487	0.2367	25.9854	6.8905	0.2200	7.1105		32,319.4529	32,319.4529	1.6125		32,359.7665
Unmitigated	8.0307	31.8368	88.2569	0.3170	25.7487	0.2367	25.9854	6.8905	0.2200	7.1105		32,319.4529	32,319.4529	1.6125		32,359.7665

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	704.90	677.34	621.16	2,354,418	2,354,418
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,045.40	3,932.40	2825.00	6,981,419	6,981,419
General Office Building	37.31	8.32	3.55	91,327	91,327
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	265.23	330.36	275.02	376,054	376,054
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	5,884.53	5,484.13	4,405.90	11,447,639	11,447,639

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
NaturalGas Unmitigated	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3890.39	0.0420	0.3585	0.1526	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.6935	457.6935	8.7700e-003	8.3900e-003	460.4133
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3572.04	0.0385	0.3502	0.2942	2.1000e-003		0.0266	0.0266		0.0266	0.0266		420.2398	420.2398	8.0500e-003	7.7000e-003	422.7371
General Office Building	96.485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
Health Club	1251.28	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	1318.81	0.0142	0.1293	0.1086	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.1540	155.1540	2.9700e-003	2.8400e-003	156.0760
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1092**	**0.9702**	**0.6663**	**5.9700e-003**		**0.0755**	**0.0755**		**0.0755**	**0.0755**		**1,191.6479**	**1,191.6479**	**0.0228**	**0.0218**	**1,198.7293**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.89039	0.0420	0.3585	0.1526	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.6935	457.6935	8.7700e-003	8.3900e-003	460.4133
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3.57204	0.0385	0.3502	0.2942	2.1000e-003		0.0266	0.0266		0.0266	0.0266		420.2398	420.2398	8.0500e-003	7.7000e-003	422.7371
General Office Building	0.096485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
Health Club	1.25128	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	1.31881	0.0142	0.1293	0.1086	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.1540	155.1540	2.9700e-003	2.8400e-003	156.0760
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1092**	**0.9702**	**0.6663**	**5.9700e-003**		**0.0755**	**0.0755**		**0.0755**	**0.0755**		**1,191.6479**	**1,191.6479**	**0.0228**	**0.0218**	**1,198.7293**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Unmitigated	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.7758	2.1993	53.9065	0.1375		8.0972	8.0972		8.0972	8.0972	992.8934	1,908.0000	2,900.8934	2.9610	0.0674	2,995.0007
Landscaping	0.2683	0.1013	8.7990	4.7000e-004		0.0486	0.0486		0.0486	0.0486		15.8577	15.8577	0.0154		16.2436
Total	**32.8748**	**2.3006**	**62.7055**	**0.1380**		**8.1458**	**8.1458**		**8.1458**	**8.1458**	**992.8934**	**1,923.8577**	**2,916.7511**	**2.9764**	**0.0674**	**3,011.2443**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.7758	2.1993	53.9065	0.1375		8.0972	8.0972		8.0972	8.0972	992.8934	1,908.0000	2,900.8934	2.9610	0.0674	2,995.0007
Landscaping	0.2683	0.1013	8.7990	4.7000e-004		0.0486	0.0486		0.0486	0.0486		15.8577	15.8577	0.0154		16.2436
Total	**32.8748**	**2.3006**	**62.7055**	**0.1380**		**8.1458**	**8.1458**		**8.1458**	**8.1458**	**992.8934**	**1,923.8577**	**2,916.7511**	**2.9764**	**0.0674**	**3,011.2443**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pacific Square Construction Phase 1 - Full Mitigation

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
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

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start date and end date.

Off-road Equipment - See SWAPE comment about unit amounts. Trenching equipment consistent with DEIR's model.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - See SWAPE comment about acres of grading values.

Trips and VMT - See SWAPE comment about worker, vendor, and hauling trip numbers.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	220.00	500.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	3.00	7.00
tblConstructionPhase	PhaseEndDate	5/12/2022	9/29/2023
tblConstructionPhase	PhaseEndDate	4/14/2022	7/31/2023
tblConstructionPhase	PhaseEndDate	6/10/2021	5/28/2021
tblConstructionPhase	PhaseEndDate	4/28/2022	8/30/2023
tblConstructionPhase	PhaseEndDate	6/2/2021	5/11/2021
tblConstructionPhase	PhaseStartDate	4/29/2022	8/31/2023

tblConstructionPhase	PhaseStartDate	6/11/2021	8/31/2021
tblConstructionPhase	PhaseStartDate	6/3/2021	5/12/2021
tblConstructionPhase	PhaseStartDate	4/15/2022	8/1/2023
tblConstructionPhase	PhaseStartDate	5/29/2021	5/1/2021
tblGrading	MaterialExported	0.00	700.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes

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	16.2221	483.7913	125.3755	1.3396	33.2060	2.1354	35.3415	8.6470	2.0172	10.6642	0.0000	145,050.0514	145,050.0514	10.9645	0.0000	145,324.1637
2022	2.8786	20.3230	22.3198	0.0587	2.4935	0.7289	3.2224	0.6694	0.6981	1.3675	0.0000	5,749.1425	5,749.1425	0.5893	0.0000	5,763.8758
2023	70.3155	18.0381	21.4917	0.0576	2.4935	0.6346	3.1281	0.6694	0.6075	1.2770	0.0000	5,631.0109	5,631.0109	0.5641	0.0000	5,645.1127
Maximum	**70.3155**	**483.7913**	**125.3755**	**1.3396**	**33.2060**	**2.1354**	**35.3415**	**8.6470**	**2.0172**	**10.6642**	**0.0000**	**145,050.0514**	**145,050.0514**	**10.9645**	**0.0000**	**145,324.1637**

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	14.9765	466.8085	126.4853	1.3396	33.2060	1.4737	34.6797	8.6470	1.4116	10.0586	0.0000	145,050.0514	145,050.0514	10.9645	0.0000	145,324.1637
2022	1.2213	6.5775	18.4116	0.0587	2.4935	0.0532	2.5466	0.6694	0.0514	0.7208	0.0000	5,126.7093	5,126.7093	0.5149	0.0000	5,139.5807
2023	70.1536	5.2727	17.7222	0.0576	2.4935	0.0474	2.5409	0.6694	0.0459	0.7154	0.0000	5,008.5778	5,008.5778	0.5458	0.0000	5,020.9819
Maximum	**70.1536**	**466.8085**	**126.4853**	**1.3396**	**33.2060**	**1.4737**	**34.6797**	**8.6470**	**1.4116**	**10.0586**	**0.0000**	**145,050.0514**	**145,050.0514**	**10.9645**	**0.0000**	**145,324.1637**

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.43**	**8.33**	**3.88**	**0.00**	**0.00**	**55.01**	**4.62**	**0.00**	**54.59**	**13.63**	**0.00**	**0.80**	**0.80**	**0.77**	**0.00**	**0.80**

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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	7.7664	32.3296	85.3327	0.3012	25.7487	0.2383	25.9870	6.8905	0.2216	7.1121		30,720.2892	30,720.2892	1.6223		30,760.8468
Total	**40.7504**	**35.6004**	**148.7044**	**0.4452**	**25.7487**	**8.4595**	**34.2082**	**6.8905**	**8.4428**	**15.3333**	**992.8934**	**33,835.7949**	**34,828.6882**	**4.6216**	**0.0892**	**34,970.8205**

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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	7.7664	32.3296	85.3327	0.3012	25.7487	0.2383	25.9870	6.8905	0.2216	7.1121		30,720.2892	30,720.2892	1.6223		30,760.8468
Total	**40.7504**	**35.6004**	**148.7044**	**0.4452**	**25.7487**	**8.4595**	**34.2082**	**6.8905**	**8.4428**	**15.3333**	**992.8934**	**33,835.7949**	**34,828.6882**	**4.6216**	**0.0892**	**34,970.8205**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/11/2021	5	7	
2	Grading	Grading	5/12/2021	5/28/2021	5	13	
3	Drainage/Utilities/Trenching	Trenching	5/29/2021	8/30/2021	5	66	
4	Building Construction/Foundation	Building Construction	8/31/2021	7/31/2023	5	500	
5	Paving	Paving	8/1/2023	8/30/2023	5	22	
6	Architectural Coating	Architectural Coating	8/31/2023	9/29/2023	5	22	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped Parking Area: 13,232 (Architectural Coating – sqft)

OffRoad Equipment

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Building Construction/Foundation	Generator Sets	1	8.00	84	0.74
Building Construction/Foundation	Cranes	1	8.00	231	0.29
Building Construction/Foundation	Forklifts	2	7.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction/Foundation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction/Foundation	Welders	3	8.00	46	0.45

Trips and VMT

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Drainage/Utilities/Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction/Foundati	8	191.00	56.00	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	38.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					3.1417	0.0000	3.1417	0.4066	0.0000	0.4066			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**3.1417**	**0.7019**	**3.8436**	**0.4066**	**0.6457**	**1.0524**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

3.2 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	14.6376	465.4791	114.3313	1.3142	29.9749	1.4328	31.4078	8.2167	1.3708	9.5875		142,591.3881	142,591.3881	10.1945		142,846.2513
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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**14.6758**	**465.5052**	**114.6259**	**1.3151**	**30.0644**	**1.4336**	**31.4979**	**8.2404**	**1.3715**	**9.6118**		**142,677.1682**	**142,677.1682**	**10.1971**		**142,932.0945**

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					3.1417	0.0000	3.1417	0.4066	0.0000	0.4066			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**3.1417**	**0.0401**	**3.1818**	**0.4066**	**0.0401**	**0.4467**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

3.2 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	14.6376	465.4791	114.3313	1.3142	29.9749	1.4328	31.4078	8.2167	1.3708	9.5875		142,591.3881	142,591.3881	10.1945		142,846.2513
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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**14.6758**	**465.5052**	**114.6259**	**1.3151**	**30.0644**	**1.4336**	**31.4979**	**8.2404**	**1.3715**	**9.6118**		**142,677.1682**	**142,677.1682**	**10.1971**		**142,932.0945**

3.3 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					6.5584	0.0000	6.5584	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5584**	**0.9158**	**7.4742**	**3.3684**	**0.8425**	**4.2109**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.3 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	0.0578	1.8381	0.4515	5.1900e-003	0.1184	5.6600e-003	0.1240	0.0325	5.4100e-003	0.0379		563.0532	563.0532	0.0403		564.0596
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	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.1055**	**1.8707**	**0.8197**	**6.2700e-003**	**0.2301**	**6.5600e-003**	**0.2367**	**0.0621**	**6.2400e-003**	**0.0683**		**670.2783**	**670.2783**	**0.0434**		**671.3636**

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					6.5584	0.0000	6.5584	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**6.5584**	**0.0336**	**6.5921**	**3.3684**	**0.0336**	**3.4020**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.3 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	0.0578	1.8381	0.4515	5.1900e-003	0.1184	5.6600e-003	0.1240	0.0325	5.4100e-003	0.0379		563.0532	563.0532	0.0403		564.0596
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	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.1055**	**1.8707**	**0.8197**	**6.2700e-003**	**0.2301**	**6.5600e-003**	**0.2367**	**0.0621**	**6.2400e-003**	**0.0683**		**670.2783**	**670.2783**	**0.0434**		**671.3636**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7371	4.5261	6.9200e-003		0.1777	0.1777		0.1649	0.1649		658.5986	658.5986	0.1998		663.5945
Total	**0.3605**	**3.7371**	**4.5261**	**6.9200e-003**		**0.1777**	**0.1777**		**0.1649**	**0.1649**		**658.5986**	**658.5986**	**0.1998**		**663.5945**

3.4 Drainage/Utilities/Trenching - 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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**0.0382**	**0.0261**	**0.2946**	**8.6000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**85.7801**	**85.7801**	**2.5200e-003**		**85.8432**

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	0.0756	0.3278	4.6643	6.9200e-003		0.0101	0.0101		0.0101	0.0101	0.0000	658.5986	658.5986	0.1998		663.5945
Total	**0.0756**	**0.3278**	**4.6643**	**6.9200e-003**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**658.5986**	**658.5986**	**0.1998**		**663.5945**

3.4 Drainage/Utilities/Trenching - 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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**0.0382**	**0.0261**	**0.2946**	**8.6000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**85.7801**	**85.7801**	**2.5200e-003**		**85.8432**

3.5 Building Construction/Foundation - 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					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

3.5 Building Construction/Foundation - 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	0.1787	5.4258	1.5723	0.0140	0.3585	0.0115	0.3700	0.1032	0.0110	0.1142		1,497.1349	1,497.1349	0.0967		1,499.5512
Worker	0.9107	0.6229	7.0337	0.0206	2.1349	0.0173	2.1522	0.5662	0.0159	0.5821		2,047.9996	2,047.9996	0.0603		2,049.5062
Total	**1.0894**	**6.0487**	**8.6060**	**0.0346**	**2.4935**	**0.0287**	**2.5222**	**0.6694**	**0.0269**	**0.6963**		**3,545.1345**	**3,545.1345**	**0.1569**		**3,549.0574**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.5023	1,666.5023	0.3693		1,675.7341
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.5023**	**1,666.5023**	**0.3693**		**1,675.7341**

3.5 Building Construction/Foundation - 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	0.1787	5.4258	1.5723	0.0140	0.3585	0.0115	0.3700	0.1032	0.0110	0.1142		1,497.1349	1,497.1349	0.0967		1,499.5512
Worker	0.9107	0.6229	7.0337	0.0206	2.1349	0.0173	2.1522	0.5662	0.0159	0.5821		2,047.9996	2,047.9996	0.0603		2,049.5062
Total	**1.0894**	**6.0487**	**8.6060**	**0.0346**	**2.4935**	**0.0287**	**2.5222**	**0.6694**	**0.0269**	**0.6963**		**3,545.1345**	**3,545.1345**	**0.1569**		**3,549.0574**

3.5 Building Construction/Foundation - 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

3.5 Building Construction/Foundation - 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	0.1678	5.1564	1.4883	0.0139	0.3585	0.0100	0.3686	0.1032	9.6000e-003	0.1128		1,483.8336	1,483.8336	0.0933		1,486.1649
Worker	0.8554	0.5626	6.4783	0.0198	2.1349	0.0167	2.1516	0.5662	0.0154	0.5816		1,976.0277	1,976.0277	0.0544		1,977.3879
Total	**1.0231**	**5.7190**	**7.9666**	**0.0337**	**2.4935**	**0.0268**	**2.5202**	**0.6694**	**0.0250**	**0.6944**		**3,459.8612**	**3,459.8612**	**0.1477**		**3,463.5528**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.8481	1,666.8481	0.3672		1,676.0279
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.8481**	**1,666.8481**	**0.3672**		**1,676.0279**

3.5 Building Construction/Foundation - 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	0.1678	5.1564	1.4883	0.0139	0.3585	0.0100	0.3686	0.1032	9.6000e-003	0.1128		1,483.8336	1,483.8336	0.0933		1,486.1649
Worker	0.8554	0.5626	6.4783	0.0198	2.1349	0.0167	2.1516	0.5662	0.0154	0.5816		1,976.0277	1,976.0277	0.0544		1,977.3879
Total	**1.0231**	**5.7190**	**7.9666**	**0.0337**	**2.4935**	**0.0268**	**2.5202**	**0.6694**	**0.0250**	**0.6944**		**3,459.8612**	**3,459.8612**	**0.1477**		**3,463.5528**

3.5 Building Construction/Foundation - 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	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

3.5 Building Construction/Foundation - 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	0.1246	3.9054	1.3225	0.0134	0.3585	4.7700e-003	0.3633	0.1032	4.5600e-003	0.1078		1,437.7513	1,437.7513	0.0821		1,439.8037
Worker	0.8059	0.5088	5.9548	0.0191	2.1349	0.0162	2.1512	0.5662	0.0150	0.5811		1,903.7363	1,903.7363	0.0490		1,904.9611
Total	**0.9305**	**4.4142**	**7.2773**	**0.0325**	**2.4935**	**0.0210**	**2.5145**	**0.6694**	**0.0195**	**0.6889**		**3,341.4876**	**3,341.4876**	**0.1311**		**3,344.7648**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,667.0901	1,667.0901	0.3651		1,676.2171
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,667.0901**	**1,667.0901**	**0.3651**		**1,676.2171**

3.5 Building Construction/Foundation - 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	0.1246	3.9054	1.3225	0.0134	0.3585	4.7700e-003	0.3633	0.1032	4.5600e-003	0.1078		1,437.7513	1,437.7513	0.0821		1,439.8037
Worker	0.8059	0.5088	5.9548	0.0191	2.1349	0.0162	2.1512	0.5662	0.0150	0.5811		1,903.7363	1,903.7363	0.0490		1,904.9611
Total	**0.9305**	**4.4142**	**7.2773**	**0.0325**	**2.4935**	**0.0210**	**2.5145**	**0.6694**	**0.0195**	**0.6889**		**3,341.4876**	**3,341.4876**	**0.1311**		**3,344.7648**

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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.6 Paving - 2023

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2104	0.9117	12.9737	0.0179		0.0281	0.0281		0.0281	0.0281	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0179**		**0.0281**	**0.0281**		**0.0281**	**0.0281**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.6 Paving - 2023

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	69.9635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**70.1552**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 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	0.1603	0.1012	1.1847	3.8000e-003	0.4248	3.2300e-003	0.4280	0.1127	2.9700e-003	0.1156		378.7538	378.7538	9.7500e-003		378.9975
Total	**0.1603**	**0.1012**	**1.1847**	**3.8000e-003**	**0.4248**	**3.2300e-003**	**0.4280**	**0.1127**	**2.9700e-003**	**0.1156**		**378.7538**	**378.7538**	**9.7500e-003**		**378.9975**

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	69.9635					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**69.9932**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.7 Architectural Coating - 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	0.1603	0.1012	1.1847	3.8000e-003	0.4248	3.2300e-003	0.4280	0.1127	2.9700e-003	0.1156		378.7538	378.7538	9.7500e-003		378.9975
Total	**0.1603**	**0.1012**	**1.1847**	**3.8000e-003**	**0.4248**	**3.2300e-003**	**0.4280**	**0.1127**	**2.9700e-003**	**0.1156**		**378.7538**	**378.7538**	**9.7500e-003**		**378.9975**

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	7.7664	32.3296	85.3327	0.3012	25.7487	0.2383	25.9870	6.8905	0.2216	7.1121		30,720.2892	30,720.2892	1.6223		30,760.8468
Unmitigated	7.7664	32.3296	85.3327	0.3012	25.7487	0.2383	25.9870	6.8905	0.2216	7.1121		30,720.2892	30,720.2892	1.6223		30,760.8468

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	704.90	677.34	621.16	2,354,418	2,354,418
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,045.40	3,932.40	2825.00	6,981,419	6,981,419
General Office Building	37.31	8.32	3.55	91,327	91,327
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	265.23	330.36	275.02	376,054	376,054
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	5,884.53	5,484.13	4,405.90	11,447,639	11,447,639

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pacific Square Construction Phase 1 - Full Mitigation - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
NaturalGas Unmitigated	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3890.39	0.0420	0.3585	0.1526	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.6935	457.6935	8.7700e-003	8.3900e-003	460.4133
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3572.04	0.0385	0.3502	0.2942	2.1000e-003		0.0266	0.0266		0.0266	0.0266		420.2398	420.2398	8.0500e-003	7.7000e-003	422.7371
General Office Building	96.485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
Health Club	1251.28	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	1318.81	0.0142	0.1293	0.1086	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.1540	155.1540	2.9700e-003	2.8400e-003	156.0760
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1092**	**0.9702**	**0.6663**	**5.9700e-003**		**0.0755**	**0.0755**		**0.0755**	**0.0755**		**1,191.6479**	**1,191.6479**	**0.0228**	**0.0218**	**1,198.7293**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.89039	0.0420	0.3585	0.1526	2.2900e-003		0.0290	0.0290		0.0290	0.0290		457.6935	457.6935	8.7700e-003	8.3900e-003	460.4133
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3.57204	0.0385	0.3502	0.2942	2.1000e-003		0.0266	0.0266		0.0266	0.0266		420.2398	420.2398	8.0500e-003	7.7000e-003	422.7371
General Office Building	0.096485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
Health Club	1.25128	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	1.31881	0.0142	0.1293	0.1086	7.8000e-004		9.8300e-003	9.8300e-003		9.8300e-003	9.8300e-003		155.1540	155.1540	2.9700e-003	2.8400e-003	156.0760
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1092**	**0.9702**	**0.6663**	**5.9700e-003**		**0.0755**	**0.0755**		**0.0755**	**0.0755**		**1,191.6479**	**1,191.6479**	**0.0228**	**0.0218**	**1,198.7293**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Unmitigated	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.7758	2.1993	53.9065	0.1375		8.0972	8.0972		8.0972	8.0972	992.8934	1,908.0000	2,900.8934	2.9610	0.0674	2,995.0007
Landscaping	0.2683	0.1013	8.7990	4.7000e-004		0.0486	0.0486		0.0486	0.0486		15.8577	15.8577	0.0154		16.2436
Total	**32.8748**	**2.3006**	**62.7055**	**0.1380**		**8.1458**	**8.1458**		**8.1458**	**8.1458**	**992.8934**	**1,923.8577**	**2,916.7511**	**2.9764**	**0.0674**	**3,011.2443**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	27.7758	2.1993	53.9065	0.1375		8.0972	8.0972		8.0972	8.0972	992.8934	1,908.0000	2,900.8934	2.9610	0.0674	2,995.0007
Landscaping	0.2683	0.1013	8.7990	4.7000e-004		0.0486	0.0486		0.0486	0.0486		15.8577	15.8577	0.0154		16.2436
Total	**32.8748**	**2.3006**	**62.7055**	**0.1380**		**8.1458**	**8.1458**		**8.1458**	**8.1458**	**992.8934**	**1,923.8577**	**2,916.7511**	**2.9764**	**0.0674**	**3,011.2443**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pacific Square Construction Phase 2 - Full Mitigation

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start and end dates.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - See SWAPE comment about off-road equipment unit amounts. Trenching equipment consistent with DEIR's model.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trip numbers.

Grading - See SWAPE comment about acres of grading value.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	220.00	505.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00
tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10

tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

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	0.1274	2.2881	1.0128	6.1400e-003	0.2037	0.0301	0.2338	0.0652	0.0284	0.0935	0.0000	589.6526	589.6526	0.0508	0.0000	590.9215
2022	0.3981	2.8733	3.2217	9.0000e-003	0.4108	0.0957	0.5066	0.1105	0.0917	0.2021	0.0000	805.0576	805.0576	0.0742	0.0000	806.9122
2023	1.2816	2.1919	2.7215	7.5600e-003	0.3462	0.0744	0.4206	0.0931	0.0711	0.1641	0.0000	675.0687	675.0687	0.0642	0.0000	676.6743
Maximum	**1.2816**	**2.8733**	**3.2217**	**9.0000e-003**	**0.4108**	**0.0957**	**0.5066**	**0.1105**	**0.0917**	**0.2021**	**0.0000**	**805.0576**	**805.0576**	**0.0742**	**0.0000**	**806.9122**

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	0.0791	1.8162	0.9609	6.1400e-003	0.2037	6.5300e-003	0.2103	0.0652	6.2800e-003	0.0714	0.0000	580.9003	580.9003	0.0496	0.0000	582.1407
2022	0.1826	1.0864	2.7136	9.0000e-003	0.4108	7.8900e-003	0.4187	0.1105	7.6000e-003	0.1181	0.0000	731.6513	731.6513	0.0654	0.0000	733.2863
2023	1.1099	0.7239	2.3332	7.5600e-003	0.3462	6.1400e-003	0.3523	0.0931	5.9300e-003	0.0990	0.0000	614.6497	614.6497	0.0576	0.0000	616.0905
Maximum	**1.1099**	**1.8162**	**2.7136**	**9.0000e-003**	**0.4108**	**7.8900e-003**	**0.4187**	**0.1105**	**7.6000e-003**	**0.1181**	**0.0000**	**731.6513**	**731.6513**	**0.0654**	**0.0000**	**733.2863**

Pacific Square Construction Phase 2 - Full Mitigation - 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	N20	CO2e
Percent Reduction	**24.10**	**50.68**	**13.63**	**0.00**	**0.00**	**89.73**	**15.47**	**0.00**	**89.63**	**37.25**	**0.00**	**6.89**	**6.89**	**8.73**	**0.00**	**6.89**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**8-1-2021**	**10-31-2021**	1.8933	1.6626
2	**11-1-2021**	**1-31-2022**	0.7237	0.2681
3	**2-1-2022**	**4-30-2022**	0.7972	0.3076
4	**5-1-2022**	**7-31-2022**	0.8202	0.3141
5	**8-1-2022**	**10-31-2022**	0.8221	0.3160
6	**11-1-2022**	**1-31-2023**	0.7937	0.3000
7	**2-1-2023**	**4-30-2023**	0.7045	0.2506
8	**5-1-2023**	**7-31-2023**	0.7248	0.2556
9	**8-1-2023**	**9-30-2023**	0.4806	0.1695
		Highest	1.8933	1.6626

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.6366	0.0549	2.4250	2.4300e-003		0.1468	0.1468		0.1468	0.1468	15.4018	32.0561	47.4579	0.0483	1.0500e-003	48.9773
Energy	0.0242	0.2141	0.1427	1.3200e-003		0.0167	0.0167		0.0167	0.0167	0.0000	1,259.3801	1,259.3801	0.0467	0.0131	1,264.4514
Mobile	1.7236	7.7065	18.7234	0.0681	5.7016	0.0534	5.7550	1.5282	0.0496	1.5778	0.0000	6,305.8405	6,305.8405	0.3206	0.0000	6,313.8559
Waste						0.0000	0.0000		0.0000	0.0000	59.9189	0.0000	59.9189	3.5411	0.0000	148.4465
Water						0.0000	0.0000		0.0000	0.0000	5.0034	91.5295	96.5329	0.5177	0.0129	113.3236
Total	**3.3843**	**7.9755**	**21.2911**	**0.0718**	**5.7016**	**0.2168**	**5.9185**	**1.5282**	**0.2131**	**1.7412**	**80.3240**	**7,688.8062**	**7,769.1302**	**4.4744**	**0.0271**	**7,889.0547**

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	1.6366	0.0549	2.4250	2.4300e-003		0.1468	0.1468		0.1468	0.1468	15.4018	32.0561	47.4579	0.0483	1.0500e-003	48.9773
Energy	0.0242	0.2141	0.1427	1.3200e-003		0.0167	0.0167		0.0167	0.0167	0.0000	1,259.3801	1,259.3801	0.0467	0.0131	1,264.4514
Mobile	1.7236	7.7065	18.7234	0.0681	5.7016	0.0534	5.7550	1.5282	0.0496	1.5778	0.0000	6,305.8405	6,305.8405	0.3206	0.0000	6,313.8559
Waste						0.0000	0.0000		0.0000	0.0000	59.9189	0.0000	59.9189	3.5411	0.0000	148.4465
Water						0.0000	0.0000		0.0000	0.0000	5.0034	91.5295	96.5329	0.5177	0.0129	113.3236
Total	**3.3843**	**7.9755**	**21.2911**	**0.0718**	**5.7016**	**0.2168**	**5.9185**	**1.5282**	**0.2131**	**1.7412**	**80.3240**	**7,688.8062**	**7,769.1302**	**4.4744**	**0.0271**	**7,889.0547**

	ROG	NOx	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

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	8/1/2021	8/18/2021	5	13	
2	Trenching	Trenching	8/19/2021	11/18/2021	5	66	
3	Building Construction	Building Construction	11/19/2021	10/26/2023	5	505	
4	Paving	Paving	10/27/2023	11/28/2023	5	23	
5	Architectural Coating	Architectural Coating	11/29/2023	12/29/2023	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped Parking Area: 17,348 (Architectural Coating – sqft)

OffRoad Equipment

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching	Dumpers/Tenders	1	8.00	16	0.38
Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	10.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	247.00	72.00	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	49.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					0.0480	0.0000	0.0480	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0119	0.1314	0.0634	1.3000e-004		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	11.7675	11.7675	3.8100e-003	0.0000	11.8627
Total	**0.0119**	**0.1314**	**0.0634**	**1.3000e-004**	**0.0480**	**5.9500e-003**	**0.0540**	**0.0227**	**5.4800e-003**	**0.0282**	**0.0000**	**11.7675**	**11.7675**	**3.8100e-003**	**0.0000**	**11.8627**

3.2 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	0.0505	1.6610	0.3873	4.6500e-003	0.1031	4.9700e-003	0.1081	0.0283	4.7600e-003	0.0331	0.0000	457.3777	457.3777	0.0318	0.0000	458.1714
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	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	**0.0508**	**1.6612**	**0.3897**	**4.6600e-003**	**0.1038**	**4.9800e-003**	**0.1088**	**0.0285**	**4.7700e-003**	**0.0333**	**0.0000**	**458.0205**	**458.0205**	**0.0318**	**0.0000**	**458.8147**

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					0.0480	0.0000	0.0480	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	7.1000e-003	0.0709	1.3000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	11.7675	11.7675	3.8100e-003	0.0000	11.8627
Total	**1.6400e-003**	**7.1000e-003**	**0.0709**	**1.3000e-004**	**0.0480**	**2.2000e-004**	**0.0482**	**0.0227**	**2.2000e-004**	**0.0229**	**0.0000**	**11.7675**	**11.7675**	**3.8100e-003**	**0.0000**	**11.8627**

3.2 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	0.0505	1.6610	0.3873	4.6500e-003	0.1031	4.9700e-003	0.1081	0.0283	4.7600e-003	0.0331	0.0000	457.3777	457.3777	0.0318	0.0000	458.1714
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	2.2000e-004	2.4600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6428	0.6428	2.0000e-005	0.0000	0.6433
Total	**0.0508**	**1.6612**	**0.3897**	**4.6600e-003**	**0.1038**	**4.9800e-003**	**0.1088**	**0.0285**	**4.7700e-003**	**0.0333**	**0.0000**	**458.0205**	**458.0205**	**0.0318**	**0.0000**	**458.8147**

3.3 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0119	0.1233	0.1493	2.3000e-004		5.8700e-003	5.8700e-003		5.4400e-003	5.4400e-003	0.0000	19.6985	19.6985	5.9800e-003	0.0000	19.8479
Total	**0.0119**	**0.1233**	**0.1493**	**2.3000e-004**		**5.8700e-003**	**5.8700e-003**		**5.4400e-003**	**5.4400e-003**	**0.0000**	**19.6985**	**19.6985**	**5.9800e-003**	**0.0000**	**19.8479**

3.3 Trenching - 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	1.1400e-003	8.8000e-004	9.9800e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6107	2.6107	8.0000e-005	0.0000	2.6127
Total	**1.1400e-003**	**8.8000e-004**	**9.9800e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.6107**	**2.6107**	**8.0000e-005**	**0.0000**	**2.6127**

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	2.4900e-003	0.0108	0.1538	2.3000e-004		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	19.6985	19.6985	5.9800e-003	0.0000	19.8479
Total	**2.4900e-003**	**0.0108**	**0.1538**	**2.3000e-004**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**19.6985**	**19.6985**	**5.9800e-003**	**0.0000**	**19.8479**

3.3 Trenching - 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	1.1400e-003	8.8000e-004	9.9800e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9200e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6107	2.6107	8.0000e-005	0.0000	2.6127
Total	**1.1400e-003**	**8.8000e-004**	**9.9800e-003**	**3.0000e-005**	**2.8900e-003**	**2.0000e-005**	**2.9200e-003**	**7.7000e-004**	**2.0000e-005**	**7.9000e-004**	**0.0000**	**2.6107**	**2.6107**	**8.0000e-005**	**0.0000**	**2.6127**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.2484	0.2257	3.9000e-004		0.0127	0.0127		0.0121	0.0121	0.0000	32.1856	32.1856	6.3300e-003	0.0000	32.3439
Total	**0.0317**	**0.2484**	**0.2257**	**3.9000e-004**		**0.0127**	**0.0127**		**0.0121**	**0.0121**	**0.0000**	**32.1856**	**32.1856**	**6.3300e-003**	**0.0000**	**32.3439**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1101	0.0299	2.8000e-004	7.0300e-003	2.2000e-004	7.2500e-003	2.0300e-003	2.1000e-004	2.2400e-003	0.0000	27.5090	27.5090	1.6900e-003	0.0000	27.5512
Worker	0.0165	0.0128	0.1448	4.2000e-004	0.0420	3.5000e-004	0.0423	0.0111	3.2000e-004	0.0115	0.0000	37.8607	37.8607	1.1100e-003	0.0000	37.8885
Total	**0.0199**	**0.1230**	**0.1746**	**7.0000e-004**	**0.0490**	**5.7000e-004**	**0.0496**	**0.0132**	**5.3000e-004**	**0.0137**	**0.0000**	**65.3697**	**65.3697**	**2.8000e-003**	**0.0000**	**65.4397**

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	3.0700e-003	0.0133	0.1619	3.9000e-004		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	23.4333	23.4333	5.1900e-003	0.0000	23.5631
Total	**3.0700e-003**	**0.0133**	**0.1619**	**3.9000e-004**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**23.4333**	**23.4333**	**5.1900e-003**	**0.0000**	**23.5631**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4700e-003	0.1101	0.0299	2.8000e-004	7.0300e-003	2.2000e-004	7.2500e-003	2.0300e-003	2.1000e-004	2.2400e-003	0.0000	27.5090	27.5090	1.6900e-003	0.0000	27.5512
Worker	0.0165	0.0128	0.1448	4.2000e-004	0.0420	3.5000e-004	0.0423	0.0111	3.2000e-004	0.0115	0.0000	37.8607	37.8607	1.1100e-003	0.0000	37.8885
Total	**0.0199**	**0.1230**	**0.1746**	**7.0000e-004**	**0.0490**	**5.7000e-004**	**0.0496**	**0.0132**	**5.3000e-004**	**0.0137**	**0.0000**	**65.3697**	**65.3697**	**2.8000e-003**	**0.0000**	**65.4397**

3.4 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	0.2412	1.8985	1.8659	3.2500e-003		0.0913	0.0913		0.0875	0.0875	0.0000	269.9841	269.9841	0.0521	0.0000	271.2863
Total	**0.2412**	**1.8985**	**1.8659**	**3.2500e-003**		**0.0913**	**0.0913**		**0.0875**	**0.0875**	**0.0000**	**269.9841**	**269.9841**	**0.0521**	**0.0000**	**271.2863**

3.4 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	0.0273	0.8776	0.2370	2.3600e-003	0.0590	1.6500e-003	0.0606	0.0170	1.5700e-003	0.0186	0.0000	228.6943	228.6943	0.0137	0.0000	229.0358
Worker	0.1296	0.0972	1.1188	3.3900e-003	0.3519	2.8100e-003	0.3547	0.0935	2.5900e-003	0.0960	0.0000	306.3791	306.3791	8.4400e-003	0.0000	306.5900
Total	**0.1568**	**0.9748**	**1.3558**	**5.7500e-003**	**0.4108**	**4.4600e-003**	**0.4153**	**0.1105**	**4.1600e-003**	**0.1146**	**0.0000**	**535.0734**	**535.0734**	**0.0221**	**0.0000**	**535.6258**

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	0.0258	0.1116	1.3578	3.2500e-003		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	196.5779	196.5779	0.0433	0.0000	197.6605
Total	**0.0258**	**0.1116**	**1.3578**	**3.2500e-003**		**3.4300e-003**	**3.4300e-003**		**3.4300e-003**	**3.4300e-003**	**0.0000**	**196.5779**	**196.5779**	**0.0433**	**0.0000**	**197.6605**

3.4 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	0.0273	0.8776	0.2370	2.3600e-003	0.0590	1.6500e-003	0.0606	0.0170	1.5700e-003	0.0186	0.0000	228.6943	228.6943	0.0137	0.0000	229.0358
Worker	0.1296	0.0972	1.1188	3.3900e-003	0.3519	2.8100e-003	0.3547	0.0935	2.5900e-003	0.0960	0.0000	306.3791	306.3791	8.4400e-003	0.0000	306.5900
Total	**0.1568**	**0.9748**	**1.3558**	**5.7500e-003**	**0.4108**	**4.4600e-003**	**0.4153**	**0.1105**	**4.1600e-003**	**0.1146**	**0.0000**	**535.0734**	**535.0734**	**0.0221**	**0.0000**	**535.6258**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1834	1.4578	1.5210	2.6800e-003		0.0657	0.0657		0.0629	0.0629	0.0000	222.2412	222.2412	0.0420	0.0000	223.2919
Total	**0.1834**	**1.4578**	**1.5210**	**2.6800e-003**		**0.0657**	**0.0657**		**0.0629**	**0.0629**	**0.0000**	**222.2412**	**222.2412**	**0.0420**	**0.0000**	**223.2919**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0167	0.5457	0.1750	1.8800e-003	0.0485	6.4000e-004	0.0492	0.0140	6.1000e-004	0.0146	0.0000	182.3402	182.3402	9.9400e-003	0.0000	182.5885
Worker	0.1003	0.0723	0.8468	2.6900e-003	0.2896	2.2500e-003	0.2919	0.0769	2.0700e-003	0.0790	0.0000	242.9458	242.9458	6.2500e-003	0.0000	243.1022
Total	**0.1169**	**0.6181**	**1.0218**	**4.5700e-003**	**0.3381**	**2.8900e-003**	**0.3410**	**0.0909**	**2.6800e-003**	**0.0936**	**0.0000**	**425.2860**	**425.2860**	**0.0162**	**0.0000**	**425.6907**

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	0.0212	0.0919	1.1176	2.6800e-003		2.8300e-003	2.8300e-003		2.8300e-003	2.8300e-003	0.0000	161.8222	161.8222	0.0354	0.0000	162.7081
Total	**0.0212**	**0.0919**	**1.1176**	**2.6800e-003**		**2.8300e-003**	**2.8300e-003**		**2.8300e-003**	**2.8300e-003**	**0.0000**	**161.8222**	**161.8222**	**0.0354**	**0.0000**	**162.7081**

3.4 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	0.0167	0.5457	0.1750	1.8800e-003	0.0485	6.4000e-004	0.0492	0.0140	6.1000e-004	0.0146	0.0000	182.3402	182.3402	9.9400e-003	0.0000	182.5885
Worker	0.1003	0.0723	0.8468	2.6900e-003	0.2896	2.2500e-003	0.2919	0.0769	2.0700e-003	0.0790	0.0000	242.9458	242.9458	6.2500e-003	0.0000	243.1022
Total	**0.1169**	**0.6181**	**1.0218**	**4.5700e-003**	**0.3381**	**2.8900e-003**	**0.3410**	**0.0909**	**2.6800e-003**	**0.0936**	**0.0000**	**425.2860**	**425.2860**	**0.0162**	**0.0000**	**425.6907**

3.5 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	0.0101	0.0990	0.1344	2.1000e-004		4.9900e-003	4.9900e-003		4.6000e-003	4.6000e-003	0.0000	17.8397	17.8397	5.6500e-003	0.0000	17.9811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0101**	**0.0990**	**0.1344**	**2.1000e-004**		**4.9900e-003**	**4.9900e-003**		**4.6000e-003**	**4.6000e-003**	**0.0000**	**17.8397**	**17.8397**	**5.6500e-003**	**0.0000**	**17.9811**

3.5 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	6.5000e-004	4.7000e-004	5.5300e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.5857	1.5857	4.0000e-005	0.0000	1.5867
Total	**6.5000e-004**	**4.7000e-004**	**5.5300e-003**	**2.0000e-005**	**1.8900e-003**	**1.0000e-005**	**1.9000e-003**	**5.0000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.5857**	**1.5857**	**4.0000e-005**	**0.0000**	**1.5867**

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	2.4200e-003	0.0105	0.1492	2.1000e-004		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	17.8397	17.8397	5.6500e-003	0.0000	17.9810
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.4200e-003**	**0.0105**	**0.1492**	**2.1000e-004**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**17.8397**	**17.8397**	**5.6500e-003**	**0.0000**	**17.9810**

3.5 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	6.5000e-004	4.7000e-004	5.5300e-003	2.0000e-005	1.8900e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.5857	1.5857	4.0000e-005	0.0000	1.5867
Total	**6.5000e-004**	**4.7000e-004**	**5.5300e-003**	**2.0000e-005**	**1.8900e-003**	**1.0000e-005**	**1.9000e-003**	**5.0000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.5857**	**1.5857**	**4.0000e-005**	**0.0000**	**1.5867**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9662					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-003	0.0150	0.0208	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.9362	2.9362	1.8000e-004	0.0000	2.9406
Total	**0.9684**	**0.0150**	**0.0208**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.9362**	**2.9362**	**1.8000e-004**	**0.0000**	**2.9406**

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1400e-003	1.5400e-003	0.0181	6.0000e-005	6.1700e-003	5.0000e-005	6.2200e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.1799	5.1799	1.3000e-004	0.0000	5.1833
Total	**2.1400e-003**	**1.5400e-003**	**0.0181**	**6.0000e-005**	**6.1700e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.1799**	**5.1799**	**1.3000e-004**	**0.0000**	**5.1833**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9662					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	1.4800e-003	0.0211	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.9362	2.9362	1.8000e-004	0.0000	2.9406
Total	**0.9665**	**1.4800e-003**	**0.0211**	**3.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**2.9362**	**2.9362**	**1.8000e-004**	**0.0000**	**2.9406**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1400e-003	1.5400e-003	0.0181	6.0000e-005	6.1700e-003	5.0000e-005	6.2200e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.1799	5.1799	1.3000e-004	0.0000	5.1833
Total	**2.1400e-003**	**1.5400e-003**	**0.0181**	**6.0000e-005**	**6.1700e-003**	**5.0000e-005**	**6.2200e-003**	**1.6400e-003**	**4.0000e-005**	**1.6800e-003**	**0.0000**	**5.1799**	**5.1799**	**1.3000e-004**	**0.0000**	**5.1833**

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	1.7236	7.7065	18.7234	0.0681	5.7016	0.0534	5.7550	1.5282	0.0496	1.5778	0.0000	6,305.8405	6,305.8405	0.3206	0.0000	6,313.8559
Unmitigated	1.7236	7.7065	18.7234	0.0681	5.7016	0.0534	5.7550	1.5282	0.0496	1.5778	0.0000	6,305.8405	6,305.8405	0.3206	0.0000	6,313.8559

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	964.25	926.55	849.70	3,220,666	3,220,666
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,260.20	4,141.20	2975.00	7,352,113	7,352,113
General Office Building	37.28	8.31	3.55	91,246	91,246
High Turnover (Sit Down Restaurant)	370.01	460.86	383.65	524,601	524,601
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.56	299.32	145.46	549,735	549,735
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	8,026.59	9,455.75	7,747.79	15,023,753	15,023,753

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Strip Mall	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Supermarket	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,020.1004	1,020.1004	0.0421	8.7100e-003	1,023.7499
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,020.1004	1,020.1004	0.0421	8.7100e-003	1,023.7499
NaturalGas Mitigated	0.0242	0.2141	0.1427	1.3200e-003		0.0167	0.0167		0.0167	0.0167	0.0000	239.2797	239.2797	4.5900e-003	4.3900e-003	240.7016
NaturalGas Unmitigated	0.0242	0.2141	0.1427	1.3200e-003		0.0167	0.0167		0.0167	0.0167	0.0000	239.2797	239.2797	4.5900e-003	4.3900e-003	240.7016

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 Mid Rise	1.94244e+006	0.0105	0.0895	0.0381	5.7000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003	0.0000	103.6562	103.6562	1.9900e-003	1.9000e-003	104.2722
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.37348e+006	7.4100e-003	0.0673	0.0566	4.0000e-004		5.1200e-003	5.1200e-003		5.1200e-003	5.1200e-003	0.0000	73.2943	73.2943	1.4000e-003	1.3400e-003	73.7299
General Office Building	35217	1.9000e-004	1.7300e-003	1.4500e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8793	1.8793	4.0000e-005	3.0000e-005	1.8905
High Turnover (Sit Down Restaurant)	672435	3.6300e-003	0.0330	0.0277	2.0000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	35.8837	35.8837	6.9000e-004	6.6000e-004	36.0969
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11668.6	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6227	0.6227	1.0000e-005	1.0000e-005	0.6264
Supermarket	448683	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9434	23.9434	4.6000e-004	4.4000e-004	24.0857
Total		**0.0242**	**0.2141**	**0.1428**	**1.3100e-003**		**0.0167**	**0.0167**		**0.0167**	**0.0167**	**0.0000**	**239.2797**	**239.2797**	**4.5900e-003**	**4.3800e-003**	**240.7016**

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 Mid Rise	1.94244e+006	0.0105	0.0895	0.0381	5.7000e-004		7.2400e-003	7.2400e-003		7.2400e-003	7.2400e-003	0.0000	103.6562	103.6562	1.9900e-003	1.9000e-003	104.2722
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.37348e+006	7.4100e-003	0.0673	0.0566	4.0000e-004		5.1200e-003	5.1200e-003		5.1200e-003	5.1200e-003	0.0000	73.2943	73.2943	1.4000e-003	1.3400e-003	73.7299
General Office Building	35217	1.9000e-004	1.7300e-003	1.4500e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	1.8793	1.8793	4.0000e-005	3.0000e-005	1.8905
High Turnover (Sit Down Restaurant)	672435	3.6300e-003	0.0330	0.0277	2.0000e-004		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	35.8837	35.8837	6.9000e-004	6.6000e-004	36.0969
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11668.6	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6227	0.6227	1.0000e-005	1.0000e-005	0.6264
Supermarket	448683	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9434	23.9434	4.6000e-004	4.4000e-004	24.0857
Total		**0.0242**	**0.2141**	**0.1428**	**1.3100e-003**		**0.0167**	**0.0167**		**0.0167**	**0.0167**	**0.0000**	**239.2797**	**239.2797**	**4.5900e-003**	**4.3800e-003**	**240.7016**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	586985	187.0259	7.7200e-003	1.6000e-003	187.6950
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.32436e+006	421.9695	0.0174	3.6000e-003	423.4791
Fast Food Restaurant w/o Drive Thru	262721	83.7086	3.4600e-003	7.2000e-004	84.0081
General Office Building	43945.2	14.0019	5.8000e-004	1.2000e-004	14.0520
High Turnover (Sit Down Restaurant)	128624	40.9824	1.6900e-003	3.5000e-004	41.1290
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	96052.5	30.6044	1.2600e-003	2.6000e-004	30.7139
Supermarket	758919	241.8078	9.9800e-003	2.0700e-003	242.6729
Total		**1,020.1004**	**0.0421**	**8.7200e-003**	**1,023.7499**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	586985	187.0259	7.7200e-003	1.6000e-003	187.6950
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.32436e+006	421.9695	0.0174	3.6000e-003	423.4791
Fast Food Restaurant w/o Drive Thru	262721	83.7086	3.4600e-003	7.2000e-004	84.0081
General Office Building	43945.2	14.0019	5.8000e-004	1.2000e-004	14.0520
High Turnover (Sit Down Restaurant)	128624	40.9824	1.6900e-003	3.5000e-004	41.1290
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	96052.5	30.6044	1.2600e-003	2.6000e-004	30.7139
Supermarket	758919	241.8078	9.9800e-003	2.0700e-003	242.6729
Total		**1,020.1004**	**0.0421**	**8.7200e-003**	**1,023.7499**

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	1.6366	0.0549	2.4250	2.4300e-003		0.1468	0.1468		0.1468	0.1468	15.4018	32.0561	47.4579	0.0483	1.0500e-003	48.9773
Unmitigated	1.6366	0.0549	2.4250	2.4300e-003		0.1468	0.1468		0.1468	0.1468	15.4018	32.0561	47.4579	0.0483	1.0500e-003	48.9773

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	0.0966					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4749	0.0376	0.9218	2.3500e-003		0.1385	0.1385		0.1385	0.1385	15.4018	29.5969	44.9987	0.0459	1.0500e-003	46.4585
Landscaping	0.0457	0.0173	1.5032	8.0000e-005		8.3100e-003	8.3100e-003		8.3100e-003	8.3100e-003	0.0000	2.4592	2.4592	2.3900e-003	0.0000	2.5189
Total	**1.6366**	**0.0549**	**2.4250**	**2.4300e-003**		**0.1468**	**0.1468**		**0.1468**	**0.1468**	**15.4018**	**32.0561**	**47.4579**	**0.0483**	**1.0500e-003**	**48.9773**

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	0.0966					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.4749	0.0376	0.9218	2.3500e-003		0.1385	0.1385		0.1385	0.1385	15.4018	29.5969	44.9987	0.0459	1.0500e-003	46.4585
Landscaping	0.0457	0.0173	1.5032	8.0000e-005		8.3100e-003	8.3100e-003		8.3100e-003	8.3100e-003	0.0000	2.4592	2.4592	2.3900e-003	0.0000	2.5189
Total	**1.6366**	**0.0549**	**2.4250**	**2.4300e-003**		**0.1468**	**0.1468**		**0.1468**	**0.1468**	**15.4018**	**32.0561**	**47.4579**	**0.0483**	**1.0500e-003**	**48.9773**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	96.5329	0.5177	0.0129	113.3236
Unmitigated	96.5329	0.5177	0.0129	113.3236

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.44733 / 5.95593	63.2753	0.3103	7.7800e-003	73.3531
City Park	0 / 0.476593	1.6871	7.0000e-005	1.0000e-005	1.6931
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.80603 / 0.115278	8.4738	0.0592	1.4600e-003	10.3874
General Office Building	0.60074 / 0.368196	3.9863	0.0197	4.9000e-004	4.6270
High Turnover (Sit Down Restaurant)	0.883283 / 0.0563798	4.1443	0.0289	7.1000e-004	5.0802
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.527396 / 0.323243	3.4996	0.0173	4.3000e-004	4.0621
Supermarket	2.50604 / 0.0775065	11.4664	0.0821	2.0200e-003	14.1207
Total		**96.5329**	**0.5177**	**0.0129**	**113.3236**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	9.44733 / 5.95593	63.2753	0.3103	7.7800e-003	73.3531
City Park	0 / 0.476593	1.6871	7.0000e-005	1.0000e-005	1.6931
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.80603 / 0.115278	8.4738	0.0592	1.4600e-003	10.3874
General Office Building	0.60074 / 0.368196	3.9863	0.0197	4.9000e-004	4.6270
High Turnover (Sit Down Restaurant)	0.883283 / 0.0563798	4.1443	0.0289	7.1000e-004	5.0802
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.527396 / 0.323243	3.4996	0.0173	4.3000e-004	4.0621
Supermarket	2.50604 / 0.0775065	11.4664	0.0821	2.0200e-003	14.1207
Total		**96.5329**	**0.5177**	**0.0129**	**113.3236**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	59.9189	3.5411	0.0000	148.4465
Unmitigated	59.9189	3.5411	0.0000	148.4465

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	66.7	13.5395	0.8002	0.0000	33.5435
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	68.54	13.9130	0.8222	0.0000	34.4689
General Office Building	3.14	0.6374	0.0377	0.0000	1.5791
High Turnover (Sit Down Restaurant)	34.63	7.0296	0.4154	0.0000	17.4155
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	7.48	1.5184	0.0897	0.0000	3.7617
Supermarket	114.66	23.2749	1.3755	0.0000	57.6627
Total		**59.9189**	**3.5411**	**0.0000**	**148.4465**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	66.7	13.5395	0.8002	0.0000	33.5435
City Park	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	68.54	13.9130	0.8222	0.0000	34.4689
General Office Building	3.14	0.6374	0.0377	0.0000	1.5791
High Turnover (Sit Down Restaurant)	34.63	7.0296	0.4154	0.0000	17.4155
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	7.48	1.5184	0.0897	0.0000	3.7617
Supermarket	114.66	23.2749	1.3755	0.0000	57.6627
Total		**59.9189**	**3.5411**	**0.0000**	**148.4465**

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

Pacific Square Construction Phase 2 - Full Mitigation

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
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

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start and end dates.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - See SWAPE comment about off-road equipment unit amounts. Trenching equipment consistent with DEIR's model.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trip numbers.

Grading - See SWAPE comment about acres of grading value.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	220.00	505.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00
tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10

tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

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	9.5665	267.8523	68.2205	0.7419	23.6396	1.6767	25.3163	7.9479	1.5704	9.5184	0.0000	80,242.9903	80,242.9903	5.9512	0.0000	80,391.7701
2022	3.0527	21.9092	25.2609	0.0706	3.2218	0.7363	3.9581	0.8649	0.7050	1.5699	0.0000	6,964.9991	6,964.9991	0.6292	0.0000	6,980.7280
2023	84.3934	19.2628	24.2287	0.0690	3.2219	0.6405	3.8623	0.8649	0.6129	1.4779	0.0000	6,804.1073	6,804.1073	0.6003	0.0000	6,819.1145
Maximum	**84.3934**	**267.8523**	**68.2205**	**0.7419**	**23.6396**	**1.6767**	**25.3163**	**7.9479**	**1.5704**	**9.5184**	**0.0000**	**80,242.9903**	**80,242.9903**	**5.9512**	**0.0000**	**80,391.7701**

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	7.9915	248.7315	69.3672	0.7419	23.6396	0.7945	24.4341	7.9479	0.7616	8.7095	0.0000	80,242.9903	80,242.9903	5.9512	0.0000	80,391.7701
2022	1.3953	8.1637	21.3526	0.0706	3.2218	0.0605	3.2824	0.8649	0.0583	0.9232	0.0000	6,342.5659	6,342.5659	0.5547	0.0000	6,356.4329
2023	84.2314	6.4973	20.4592	0.0690	3.2219	0.0532	3.2751	0.8649	0.0513	0.9162	0.0000	6,181.6741	6,181.6741	0.5461	0.0000	6,194.9836
Maximum	**84.2314**	**248.7315**	**69.3672**	**0.7419**	**23.6396**	**0.7945**	**24.4341**	**7.9479**	**0.7616**	**8.7095**	**0.0000**	**80,242.9903**	**80,242.9903**	**5.9512**	**0.0000**	**80,391.7701**

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Summer

	ROG	NOx	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	**3.50**	**14.77**	**5.55**	**0.00**	**0.00**	**70.25**	**6.47**	**0.00**	**69.84**	**16.05**	**0.00**	**1.32**	**1.32**	**1.79**	**0.00**	**1.33**

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	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Energy	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
Mobile	11.7997	47.9926	120.7642	0.4439	36.4631	0.3358	36.7989	9.7570	0.3120	10.0690		45,304.6024	45,304.6024	2.2315		45,360.3904
Total	**56.4079**	**52.3126**	**207.3121**	**0.6399**	**36.4631**	**11.5701**	**48.0332**	**9.7570**	**11.5463**	**21.3034**	**1,358.2032**	**49,381.5527**	**50,739.7559**	**6.3307**	**0.1187**	**50,933.3904**

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	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Energy	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
Mobile	11.7997	47.9926	120.7642	0.4439	36.4631	0.3358	36.7989	9.7570	0.3120	10.0690		45,304.6024	45,304.6024	2.2315		45,360.3904
Total	**56.4079**	**52.3126**	**207.3121**	**0.6399**	**36.4631**	**11.5701**	**48.0332**	**9.7570**	**11.5463**	**21.3034**	**1,358.2032**	**49,381.5527**	**50,739.7559**	**6.3307**	**0.1187**	**50,933.3904**

	ROG	NOx	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	Grading	Grading	8/1/2021	8/18/2021	5	13	
2	Trenching	Trenching	8/19/2021	11/18/2021	5	66	
3	Building Construction	Building Construction	11/19/2021	10/26/2023	5	505	
4	Paving	Paving	10/27/2023	11/28/2023	5	23	
5	Architectural Coating	Architectural Coating	11/29/2023	12/29/2023	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped Parking Area: 17,348 (Architectural Coating – sqft)

OffRoad Equipment

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching	Dumpers/Tenders	1	8.00	16	0.38
Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	10.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	247.00	72.00	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	49.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					7.3875	0.0000	7.3875	3.4939	0.0000	3.4939			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**7.3875**	**0.9158**	**8.3032**	**3.4939**	**0.8425**	**4.3364**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.2 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	7.6965	247.6093	58.0573	0.7202	16.1404	0.7600	16.9004	4.4244	0.7271	5.1515		78,133.5019	78,133.5019	5.3024		78,266.0623
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	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**7.7394**	**247.6388**	**58.4601**	**0.7213**	**16.2521**	**0.7609**	**17.0130**	**4.4540**	**0.7279**	**5.1819**		**78,247.3788**	**78,247.3788**	**5.3058**		**78,380.0232**

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					7.3875	0.0000	7.3875	3.4939	0.0000	3.4939			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.3875**	**0.0336**	**7.4211**	**3.4939**	**0.0336**	**3.5276**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.2 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	7.6965	247.6093	58.0573	0.7202	16.1404	0.7600	16.9004	4.4244	0.7271	5.1515		78,133.5019	78,133.5019	5.3024		78,266.0623
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	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**7.7394**	**247.6388**	**58.4601**	**0.7213**	**16.2521**	**0.7609**	**17.0130**	**4.4540**	**0.7279**	**5.1819**		**78,247.3788**	**78,247.3788**	**5.3058**		**78,380.0232**

3.3 Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

3.3 Trenching - 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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**0.0343**	**0.0236**	**0.3222**	**9.1000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**91.1016**	**91.1016**	**2.6800e-003**		**91.1687**

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	0.0756	0.3274	4.6596	6.9200e-003		0.0101	0.0101		0.0101	0.0101	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.0756**	**0.3274**	**4.6596**	**6.9200e-003**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

3.3 Trenching - 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	0.0343	0.0236	0.3222	9.1000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		91.1016	91.1016	2.6800e-003		91.1687
Total	**0.0343**	**0.0236**	**0.3222**	**9.1000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**91.1016**	**91.1016**	**2.6800e-003**		**91.1687**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2189	6.9904	1.8275	0.0185	0.4610	0.0143	0.4753	0.1327	0.0137	0.1464		1,979.1405	1,979.1405	0.1166		1,982.0555
Worker	1.0588	0.7278	9.9485	0.0282	2.7609	0.0223	2.7832	0.7322	0.0206	0.7528		2,812.7615	2,812.7615	0.0829		2,814.8335
Total	**1.2776**	**7.7182**	**11.7760**	**0.0468**	**3.2218**	**0.0366**	**3.2584**	**0.8649**	**0.0342**	**0.8991**		**4,791.9021**	**4,791.9021**	**0.1995**		**4,796.8889**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.5023	1,666.5023	0.3693		1,675.7341
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.5023**	**1,666.5023**	**0.3693**		**1,675.7341**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2189	6.9904	1.8275	0.0185	0.4610	0.0143	0.4753	0.1327	0.0137	0.1464		1,979.1405	1,979.1405	0.1166		1,982.0555
Worker	1.0588	0.7278	9.9485	0.0282	2.7609	0.0223	2.7832	0.7322	0.0206	0.7528		2,812.7615	2,812.7615	0.0829		2,814.8335
Total	**1.2776**	**7.7182**	**11.7760**	**0.0468**	**3.2218**	**0.0366**	**3.2584**	**0.8649**	**0.0342**	**0.8991**		**4,791.9021**	**4,791.9021**	**0.1995**		**4,796.8889**

3.4 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

3.4 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	0.2054	6.6478	1.7291	0.0183	0.4610	0.0125	0.4735	0.1327	0.0120	0.1447		1,961.8984	1,961.8984	0.1126		1,964.7130
Worker	0.9918	0.6574	9.1786	0.0272	2.7609	0.0216	2.7825	0.7322	0.0199	0.7521		2,713.8194	2,713.8194	0.0749		2,715.6920
Total	**1.1972**	**7.3052**	**10.9077**	**0.0456**	**3.2218**	**0.0341**	**3.2560**	**0.8649**	**0.0319**	**0.8968**		**4,675.7178**	**4,675.7178**	**0.1875**		**4,680.4050**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.8481	1,666.8481	0.3672		1,676.0279
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.8481**	**1,666.8481**	**0.3672**		**1,676.0279**

3.4 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	0.2054	6.6478	1.7291	0.0183	0.4610	0.0125	0.4735	0.1327	0.0120	0.1447		1,961.8984	1,961.8984	0.1126		1,964.7130
Worker	0.9918	0.6574	9.1786	0.0272	2.7609	0.0216	2.7825	0.7322	0.0199	0.7521		2,713.8194	2,713.8194	0.0749		2,715.6920
Total	**1.1972**	**7.3052**	**10.9077**	**0.0456**	**3.2218**	**0.0341**	**3.2560**	**0.8649**	**0.0319**	**0.8968**		**4,675.7178**	**4,675.7178**	**0.1875**		**4,680.4050**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1524	5.0441	1.5616	0.0177	0.4610	5.8300e-003	0.4668	0.1327	5.5700e-003	0.1383		1,900.1335	1,900.1335	0.0998		1,902.6277
Worker	0.9313	0.5948	8.4527	0.0262	2.7609	0.0210	2.7819	0.7322	0.0193	0.7515		2,614.4505	2,614.4505	0.0675		2,616.1389
Total	**1.0837**	**5.6388**	**10.0142**	**0.0440**	**3.2219**	**0.0268**	**3.2487**	**0.8649**	**0.0249**	**0.8898**		**4,514.5840**	**4,514.5840**	**0.1673**		**4,518.7666**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,667.0901	1,667.0901	0.3651		1,676.2171
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,667.0901**	**1,667.0901**	**0.3651**		**1,676.2171**

3.4 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	0.1524	5.0441	1.5616	0.0177	0.4610	5.8300e-003	0.4668	0.1327	5.5700e-003	0.1383		1,900.1335	1,900.1335	0.0998		1,902.6277
Worker	0.9313	0.5948	8.4527	0.0262	2.7609	0.0210	2.7819	0.7322	0.0193	0.7515		2,614.4505	2,614.4505	0.0675		2,616.1389
Total	**1.0837**	**5.6388**	**10.0142**	**0.0440**	**3.2219**	**0.0268**	**3.2487**	**0.8649**	**0.0249**	**0.8898**		**4,514.5840**	**4,514.5840**	**0.1673**		**4,518.7666**

3.5 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.5 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	0.2104	0.9117	12.9737	0.0179		0.0281	0.0281		0.0281	0.0281	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0179**		**0.0281**	**0.0281**		**0.0281**	**0.0281**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.5 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 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	84.0169					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**84.2086**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 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	0.1848	0.1180	1.6769	5.2000e-003	0.5477	4.1700e-003	0.5519	0.1453	3.8400e-003	0.1491		518.6562	518.6562	0.0134		518.9911
Total	**0.1848**	**0.1180**	**1.6769**	**5.2000e-003**	**0.5477**	**4.1700e-003**	**0.5519**	**0.1453**	**3.8400e-003**	**0.1491**		**518.6562**	**518.6562**	**0.0134**		**518.9911**

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	84.0169					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**84.0466**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 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	0.1848	0.1180	1.6769	5.2000e-003	0.5477	4.1700e-003	0.5519	0.1453	3.8400e-003	0.1491		518.6562	518.6562	0.0134		518.9911
Total	**0.1848**	**0.1180**	**1.6769**	**5.2000e-003**	**0.5477**	**4.1700e-003**	**0.5519**	**0.1453**	**3.8400e-003**	**0.1491**		**518.6562**	**518.6562**	**0.0134**		**518.9911**

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	11.7997	47.9926	120.7642	0.4439	36.4631	0.3358	36.7989	9.7570	0.3120	10.0690		45,304.6024	45,304.6024	2.2315		45,360.3904
Unmitigated	11.7997	47.9926	120.7642	0.4439	36.4631	0.3358	36.7989	9.7570	0.3120	10.0690		45,304.6024	45,304.6024	2.2315		45,360.3904

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	964.25	926.55	849.70	3,220,666	3,220,666
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,260.20	4,141.20	2975.00	7,352,113	7,352,113
General Office Building	37.28	8.31	3.55	91,246	91,246
High Turnover (Sit Down Restaurant)	370.01	460.86	383.65	524,601	524,601
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.56	299.32	145.46	549,735	549,735
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	8,026.59	9,455.75	7,747.79	15,023,753	15,023,753

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Strip Mall	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Supermarket	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
NaturalGas Unmitigated	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	5321.77	0.0574	0.4904	0.2087	3.1300e-003		0.0397	0.0397		0.0397	0.0397		626.0901	626.0901	0.0120	0.0115	629.8107
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3762.97	0.0406	0.3689	0.3099	2.2100e-003		0.0280	0.0280		0.0280	0.0280		442.7022	442.7022	8.4900e-003	8.1200e-003	445.3329
General Office Building	96.485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
High Turnover (Sit Down Restaurant)	1842.29	0.0199	0.1806	0.1517	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.7396	216.7396	4.1500e-003	3.9700e-003	218.0276
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.9688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1229.27	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.1325**	**1.1731**	**0.7821**	**7.2200e-003**		**0.0915**	**0.0915**		**0.0915**	**0.0915**		**1,445.2640**	**1,445.2640**	**0.0277**	**0.0265**	**1,453.8525**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	5.32177	0.0574	0.4904	0.2087	3.1300e-003		0.0397	0.0397		0.0397	0.0397		626.0901	626.0901	0.0120	0.0115	629.8107
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3.76297	0.0406	0.3689	0.3099	2.2100e-003		0.0280	0.0280		0.0280	0.0280		442.7022	442.7022	8.4900e-003	8.1200e-003	445.3329
General Office Building	0.096485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
High Turnover (Sit Down Restaurant)	1.84229	0.0199	0.1806	0.1517	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.7396	216.7396	4.1500e-003	3.9700e-003	218.0276
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0319688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1.22927	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.1325**	**1.1731**	**0.7821**	**7.2200e-003**		**0.0915**	**0.0915**		**0.0915**	**0.0915**		**1,445.2640**	**1,445.2640**	**0.0277**	**0.0265**	**1,453.8525**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Unmitigated	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	37.9952	3.0085	73.7400	0.1881		11.0763	11.0763		11.0763	11.0763	1,358.2032	2,610.0000	3,968.2032	4.0504	0.0922	4,096.9350
Landscaping	0.3658	0.1384	12.0258	6.4000e-004		0.0665	0.0665		0.0665	0.0665		21.6863	21.6863	0.0211		22.2126
Total	**44.4757**	**3.1469**	**85.7658**	**0.1888**		**11.1428**	**11.1428**		**11.1428**	**11.1428**	**1,358.2032**	**2,631.6863**	**3,989.8895**	**4.0715**	**0.0922**	**4,119.1475**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	37.9952	3.0085	73.7400	0.1881		11.0763	11.0763		11.0763	11.0763	1,358.2032	2,610.0000	3,968.2032	4.0504	0.0922	4,096.9350
Landscaping	0.3658	0.1384	12.0258	6.4000e-004		0.0665	0.0665		0.0665	0.0665		21.6863	21.6863	0.0211		22.2126
Total	**44.4757**	**3.1469**	**85.7658**	**0.1888**		**11.1428**	**11.1428**		**11.1428**	**11.1428**	**1,358.2032**	**2,631.6863**	**3,989.8895**	**4.0715**	**0.0922**	**4,119.1475**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pacific Square Construction Phase 2 - Full Mitigation

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment about construction phase lengths and number of days/week. Phase lengths proportionally increased to match DEIR construction start and end dates.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - See SWAPE comment about off-road equipment unit amounts. Trenching equipment consistent with DEIR's model.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trip numbers.

Grading - See SWAPE comment about acres of grading value.

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

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	220.00	505.00
tblConstructionPhase	NumDays	6.00	13.00
tblConstructionPhase	NumDays	10.00	23.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00
tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10

tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

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	9.7565	270.8887	71.6916	0.7293	23.6396	1.6882	25.3278	7.9479	1.5815	9.5294	0.0000	78,882.8148	78,882.8148	6.1379	0.0000	79,036.2632
2022	3.1774	21.9613	24.6445	0.0685	3.2218	0.7367	3.9586	0.8649	0.7054	1.5703	0.0000	6,752.4538	6,752.4538	0.6319	0.0000	6,768.2521
2023	84.4153	19.3031	23.6155	0.0670	3.2219	0.6408	3.8626	0.8649	0.6132	1.4781	0.0000	6,599.9606	6,599.9606	0.6019	0.0000	6,615.0078
Maximum	**84.4153**	**270.8887**	**71.6916**	**0.7293**	**23.6396**	**1.6882**	**25.3278**	**7.9479**	**1.5815**	**9.5294**	**0.0000**	**78,882.8148**	**78,882.8148**	**6.1379**	**0.0000**	**79,036.2632**

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	8.1816	251.7678	72.8383	0.7293	23.6396	0.8061	24.4456	7.9479	0.7726	8.7205	0.0000	78,882.8148	78,882.8148	6.1379	0.0000	79,036.2632
2022	1.5200	8.2157	20.7362	0.0685	3.2218	0.0609	3.2828	0.8649	0.0587	0.9236	0.0000	6,130.0206	6,130.0206	0.5575	0.0000	6,143.9570
2023	84.2534	6.5377	19.8460	0.0670	3.2219	0.0535	3.2754	0.8649	0.0516	0.9165	0.0000	5,977.5274	5,977.5274	0.5458	0.0000	5,990.8770
Maximum	**84.2534**	**251.7678**	**72.8383**	**0.7293**	**23.6396**	**0.8061**	**24.4456**	**7.9479**	**0.7726**	**8.7205**	**0.0000**	**78,882.8148**	**78,882.8148**	**6.1379**	**0.0000**	**79,036.2632**

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.49**	**14.62**	**5.44**	**0.00**	**0.00**	**69.97**	**6.47**	**0.00**	**69.56**	**16.04**	**0.00**	**1.35**	**1.35**	**1.77**	**0.00**	**1.35**

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	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Energy	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
Mobile	11.4021	48.5350	117.5048	0.4216	36.4631	0.3381	36.8012	9.7570	0.3142	10.0712		43,045.1308	43,045.1308	2.2547		43,101.4971
Total	**56.0103**	**52.8550**	**204.0527**	**0.6176**	**36.4631**	**11.5725**	**48.0356**	**9.7570**	**11.5486**	**21.3056**	**1,358.2032**	**47,122.0812**	**48,480.2843**	**6.3538**	**0.1187**	**48,674.4971**

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	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Energy	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
Mobile	11.4021	48.5350	117.5048	0.4216	36.4631	0.3381	36.8012	9.7570	0.3142	10.0712		43,045.1308	43,045.1308	2.2547		43,101.4971
Total	**56.0103**	**52.8550**	**204.0527**	**0.6176**	**36.4631**	**11.5725**	**48.0356**	**9.7570**	**11.5486**	**21.3056**	**1,358.2032**	**47,122.0812**	**48,480.2843**	**6.3538**	**0.1187**	**48,674.4971**

	ROG	NOx	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	Grading	Grading	8/1/2021	8/18/2021	5	13	
2	Trenching	Trenching	8/19/2021	11/18/2021	5	66	
3	Building Construction	Building Construction	11/19/2021	10/26/2023	5	505	
4	Paving	Paving	10/27/2023	11/28/2023	5	23	
5	Architectural Coating	Architectural Coating	11/29/2023	12/29/2023	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped Parking Area: 17,348 (Architectural Coating – sqft)

OffRoad Equipment

Pacific Square Construction Phase 2 - Full Mitigation - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Trenching	Dumpers/Tenders	1	8.00	16	0.38
Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	10.00	0.00	12,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	247.00	72.00	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	49.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

3.2 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					7.3875	0.0000	7.3875	3.4939	0.0000	3.4939			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**7.3875**	**0.9158**	**8.3032**	**3.4939**	**0.8425**	**4.3364**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.2 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	7.8818	250.6426	61.5630	0.7077	16.1404	0.7715	16.9119	4.4244	0.7381	5.1625		76,779.9782	76,779.9782	5.4894		76,917.2122
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	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**7.9295**	**250.6752**	**61.9313**	**0.7087**	**16.2521**	**0.7724**	**17.0246**	**4.4540**	**0.7390**	**5.1930**		**76,887.2033**	**76,887.2033**	**5.4925**		**77,024.5162**

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					7.3875	0.0000	7.3875	3.4939	0.0000	3.4939			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**7.3875**	**0.0336**	**7.4211**	**3.4939**	**0.0336**	**3.5276**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

3.2 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	7.8818	250.6426	61.5630	0.7077	16.1404	0.7715	16.9119	4.4244	0.7381	5.1625		76,779.9782	76,779.9782	5.4894		76,917.2122
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	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**7.9295**	**250.6752**	**61.9313**	**0.7087**	**16.2521**	**0.7724**	**17.0246**	**4.4540**	**0.7390**	**5.1930**		**76,887.2033**	**76,887.2033**	**5.4925**		**77,024.5162**

3.3 Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

3.3 Trenching - 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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**0.0382**	**0.0261**	**0.2946**	**8.6000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**85.7801**	**85.7801**	**2.5200e-003**		**85.8432**

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	0.0756	0.3274	4.6596	6.9200e-003		0.0101	0.0101		0.0101	0.0101	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.0756**	**0.3274**	**4.6596**	**6.9200e-003**		**0.0101**	**0.0101**		**0.0101**	**0.0101**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

3.3 Trenching - 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	0.0382	0.0261	0.2946	8.6000e-004	0.0894	7.2000e-004	0.0901	0.0237	6.7000e-004	0.0244		85.7801	85.7801	2.5200e-003		85.8432
Total	**0.0382**	**0.0261**	**0.2946**	**8.6000e-004**	**0.0894**	**7.2000e-004**	**0.0901**	**0.0237**	**6.7000e-004**	**0.0244**		**85.7801**	**85.7801**	**2.5200e-003**		**85.8432**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2298	6.9760	2.0215	0.0180	0.4610	0.0148	0.4757	0.1327	0.0141	0.1468		1,924.8878	1,924.8878	0.1243		1,927.9944
Worker	1.1778	0.8056	9.0959	0.0266	2.7609	0.0223	2.7832	0.7322	0.0206	0.7528		2,648.4602	2,648.4602	0.0779		2,650.4086
Total	**1.4075**	**7.7816**	**11.1175**	**0.0446**	**3.2218**	**0.0371**	**3.2589**	**0.8649**	**0.0347**	**0.8996**		**4,573.3480**	**4,573.3480**	**0.2022**		**4,578.4029**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.5023	1,666.5023	0.3693		1,675.7341
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.5023**	**1,666.5023**	**0.3693**		**1,675.7341**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.2298	6.9760	2.0215	0.0180	0.4610	0.0148	0.4757	0.1327	0.0141	0.1468		1,924.8878	1,924.8878	0.1243		1,927.9944
Worker	1.1778	0.8056	9.0959	0.0266	2.7609	0.0223	2.7832	0.7322	0.0206	0.7528		2,648.4602	2,648.4602	0.0779		2,650.4086
Total	**1.4075**	**7.7816**	**11.1175**	**0.0446**	**3.2218**	**0.0371**	**3.2589**	**0.8649**	**0.0347**	**0.8996**		**4,573.3480**	**4,573.3480**	**0.2022**		**4,578.4029**

3.4 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	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

3.4 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	0.2157	6.6297	1.9135	0.0178	0.4610	0.0129	0.4739	0.1327	0.0123	0.1451		1,907.7860	1,907.7860	0.1199		1,910.7835
Worker	1.1062	0.7275	8.3777	0.0256	2.7609	0.0216	2.7825	0.7322	0.0199	0.7521		2,555.3866	2,555.3866	0.0704		2,557.1456
Total	**1.3219**	**7.3572**	**10.2912**	**0.0435**	**3.2218**	**0.0345**	**3.2564**	**0.8649**	**0.0323**	**0.8972**		**4,463.1726**	**4,463.1726**	**0.1903**		**4,467.9291**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,666.8481	1,666.8481	0.3672		1,676.0279
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,666.8481**	**1,666.8481**	**0.3672**		**1,676.0279**

3.4 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	0.2157	6.6297	1.9135	0.0178	0.4610	0.0129	0.4739	0.1327	0.0123	0.1451		1,907.7860	1,907.7860	0.1199		1,910.7835
Worker	1.1062	0.7275	8.3777	0.0256	2.7609	0.0216	2.7825	0.7322	0.0199	0.7521		2,555.3866	2,555.3866	0.0704		2,557.1456
Total	**1.3219**	**7.3572**	**10.2912**	**0.0435**	**3.2218**	**0.0345**	**3.2564**	**0.8649**	**0.0323**	**0.8972**		**4,463.1726**	**4,463.1726**	**0.1903**		**4,467.9291**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7136	13.6239	14.2145	0.0250		0.6136	0.6136		0.5880	0.5880		2,289.5233	2,289.5233	0.4330		2,300.3479
Total	**1.7136**	**13.6239**	**14.2145**	**0.0250**		**0.6136**	**0.6136**		**0.5880**	**0.5880**		**2,289.5233**	**2,289.5233**	**0.4330**		**2,300.3479**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1602	5.0212	1.7004	0.0173	0.4610	6.1300e-003	0.4671	0.1327	5.8600e-003	0.1386		1,848.5374	1,848.5374	0.1056		1,851.1762
Worker	1.0421	0.6580	7.7006	0.0247	2.7609	0.0210	2.7819	0.7322	0.0193	0.7515		2,461.8998	2,461.8998	0.0634		2,463.4837
Total	**1.2024**	**5.6792**	**9.4010**	**0.0420**	**3.2219**	**0.0271**	**3.2490**	**0.8649**	**0.0252**	**0.8901**		**4,310.4372**	**4,310.4372**	**0.1689**		**4,314.6599**

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	0.1981	0.8585	10.4450	0.0250		0.0264	0.0264		0.0264	0.0264	0.0000	1,667.0901	1,667.0901	0.3651		1,676.2171
Total	**0.1981**	**0.8585**	**10.4450**	**0.0250**		**0.0264**	**0.0264**		**0.0264**	**0.0264**	**0.0000**	**1,667.0901**	**1,667.0901**	**0.3651**		**1,676.2171**

3.4 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	0.1602	5.0212	1.7004	0.0173	0.4610	6.1300e-003	0.4671	0.1327	5.8600e-003	0.1386		1,848.5374	1,848.5374	0.1056		1,851.1762
Worker	1.0421	0.6580	7.7006	0.0247	2.7609	0.0210	2.7819	0.7322	0.0193	0.7515		2,461.8998	2,461.8998	0.0634		2,463.4837
Total	**1.2024**	**5.6792**	**9.4010**	**0.0420**	**3.2219**	**0.0271**	**3.2490**	**0.8649**	**0.0252**	**0.8901**		**4,310.4372**	**4,310.4372**	**0.1689**		**4,314.6599**

3.5 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	0.8802	8.6098	11.6840	0.0179		0.4338	0.4338		0.4003	0.4003		1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8802**	**8.6098**	**11.6840**	**0.0179**		**0.4338**	**0.4338**		**0.4003**	**0.4003**		**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.5 Paving - 2023

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2104	0.9117	12.9737	0.0179		0.0281	0.0281		0.0281	0.0281	0.0000	1,709.9926	1,709.9926	0.5420		1,723.5414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2104**	**0.9117**	**12.9737**	**0.0179**		**0.0281**	**0.0281**		**0.0281**	**0.0281**	**0.0000**	**1,709.9926**	**1,709.9926**	**0.5420**		**1,723.5414**

3.5 Paving - 2023

Mitigated Construction Off-Site

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

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	84.0169					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**84.2086**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 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	0.2067	0.1305	1.5277	4.9000e-003	0.5477	4.1700e-003	0.5519	0.1453	3.8400e-003	0.1491		488.3931	488.3931	0.0126		488.7073
Total	**0.2067**	**0.1305**	**1.5277**	**4.9000e-003**	**0.5477**	**4.1700e-003**	**0.5519**	**0.1453**	**3.8400e-003**	**0.1491**		**488.3931**	**488.3931**	**0.0126**		**488.7073**

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	84.0169					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**84.0466**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

3.6 Architectural Coating - 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	0.2067	0.1305	1.5277	4.9000e-003	0.5477	4.1700e-003	0.5519	0.1453	3.8400e-003	0.1491		488.3931	488.3931	0.0126		488.7073
Total	**0.2067**	**0.1305**	**1.5277**	**4.9000e-003**	**0.5477**	**4.1700e-003**	**0.5519**	**0.1453**	**3.8400e-003**	**0.1491**		**488.3931**	**488.3931**	**0.0126**		**488.7073**

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	11.4021	48.5350	117.5048	0.4216	36.4631	0.3381	36.8012	9.7570	0.3142	10.0712		43,045.1308	43,045.1308	2.2547		43,101.4971
Unmitigated	11.4021	48.5350	117.5048	0.4216	36.4631	0.3381	36.8012	9.7570	0.3142	10.0712		43,045.1308	43,045.1308	2.2547		43,101.4971

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	964.25	926.55	849.70	3,220,666	3,220,666
City Park	0.76	9.10	6.70	8,047	8,047
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	4,260.20	4,141.20	2975.00	7,352,113	7,352,113
General Office Building	37.28	8.31	3.55	91,246	91,246
High Turnover (Sit Down Restaurant)	370.01	460.86	383.65	524,601	524,601
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.56	299.32	145.46	549,735	549,735
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	8,026.59	9,455.75	7,747.79	15,023,753	15,023,753

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
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
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
City Park	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Enclosed Parking with Elevator	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Fast Food Restaurant w/o Drive Thru	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
General Office Building	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
High Turnover (Sit Down Restaurant)	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Other Non-Asphalt Surfaces	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Strip Mall	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850
Supermarket	0.545348	0.044620	0.206559	0.118451	0.015002	0.006253	0.020617	0.031756	0.002560	0.002071	0.005217	0.000696	0.000850

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525
NaturalGas Unmitigated	0.1325	1.1731	0.7821	7.2300e-003		0.0915	0.0915		0.0915	0.0915		1,445.2640	1,445.2640	0.0277	0.0265	1,453.8525

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	5321.77	0.0574	0.4904	0.2087	3.1300e-003		0.0397	0.0397		0.0397	0.0397		626.0901	626.0901	0.0120	0.0115	629.8107
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3762.97	0.0406	0.3689	0.3099	2.2100e-003		0.0280	0.0280		0.0280	0.0280		442.7022	442.7022	8.4900e-003	8.1200e-003	445.3329
General Office Building	96.485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
High Turnover (Sit Down Restaurant)	1842.29	0.0199	0.1806	0.1517	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.7396	216.7396	4.1500e-003	3.9700e-003	218.0276
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.9688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1229.27	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.1325**	**1.1731**	**0.7821**	**7.2200e-003**		**0.0915**	**0.0915**		**0.0915**	**0.0915**		**1,445.2640**	**1,445.2640**	**0.0277**	**0.0265**	**1,453.8525**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	5.32177	0.0574	0.4904	0.2087	3.1300e-003		0.0397	0.0397		0.0397	0.0397		626.0901	626.0901	0.0120	0.0115	629.8107
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	3.76297	0.0406	0.3689	0.3099	2.2100e-003		0.0280	0.0280		0.0280	0.0280		442.7022	442.7022	8.4900e-003	8.1200e-003	445.3329
General Office Building	0.096485	1.0400e-003	9.4600e-003	7.9500e-003	6.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004		11.3512	11.3512	2.2000e-004	2.1000e-004	11.4186
High Turnover (Sit Down Restaurant)	1.84229	0.0199	0.1806	0.1517	1.0800e-003		0.0137	0.0137		0.0137	0.0137		216.7396	216.7396	4.1500e-003	3.9700e-003	218.0276
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0319688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1.22927	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.1325**	**1.1731**	**0.7821**	**7.2200e-003**		**0.0915**	**0.0915**		**0.0915**	**0.0915**		**1,445.2640**	**1,445.2640**	**0.0277**	**0.0265**	**1,453.8525**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475
Unmitigated	44.4757	3.1469	85.7658	0.1888		11.1428	11.1428		11.1428	11.1428	1,358.2032	2,631.6863	3,989.8895	4.0715	0.0922	4,119.1475

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	37.9952	3.0085	73.7400	0.1881		11.0763	11.0763		11.0763	11.0763	1,358.2032	2,610.0000	3,968.2032	4.0504	0.0922	4,096.9350
Landscaping	0.3658	0.1384	12.0258	6.4000e-004		0.0665	0.0665		0.0665	0.0665		21.6863	21.6863	0.0211		22.2126
Total	**44.4757**	**3.1469**	**85.7658**	**0.1888**		**11.1428**	**11.1428**		**11.1428**	**11.1428**	**1,358.2032**	**2,631.6863**	**3,989.8895**	**4.0715**	**0.0922**	**4,119.1475**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5294					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5852					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	37.9952	3.0085	73.7400	0.1881		11.0763	11.0763		11.0763	11.0763	1,358.2032	2,610.0000	3,968.2032	4.0504	0.0922	4,096.9350
Landscaping	0.3658	0.1384	12.0258	6.4000e-004		0.0665	0.0665		0.0665	0.0665		21.6863	21.6863	0.0211		22.2126
Total	**44.4757**	**3.1469**	**85.7658**	**0.1888**		**11.1428**	**11.1428**		**11.1428**	**11.1428**	**1,358.2032**	**2,631.6863**	**3,989.8895**	**4.0715**	**0.0922**	**4,119.1475**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pacific Square - Operations

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	6.77	1000sqft	0.20	6,766.00	0
Enclosed Parking with Elevator	983.00	Space	1.90	393,200.00	0
Other Non-Asphalt Surfaces	116.46	1000sqft	0.25	116,461.00	0
City Park	0.80	Acre	0.80	35,150.00	0
Fast Food Restaurant w/o Drive Thru	11.60	1000sqft	0.20	11,602.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.20	5,000.00	0
Apartments Mid Rise	251.00	Dwelling Unit	2.00	419,498.00	804
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
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

Pacific Square - Operations - Los Angeles-South Coast County, Annual

Project Characteristics - See SWAPE comment about intensity factors.

Land Use - Consistent with DEIR's model.

Construction Phase - Consistent with DEIR's model.

Off-road Equipment - Consistent with DEIR's model.

Woodstoves - See SWAPE comment about gas fireplaces.

Energy Use - See SWAPE comment about energy use values.

Water And Wastewater - Water use rates consistent with DEIR's model. See SWAPE comment about wastewater treatment system percentages.

Solid Waste - Consistent with DEIR's model.

Waste Mitigation - See SWAPE comment about waste-related mitigation.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	2/9/2021	1/14/2021
tblFireplaces	FireplaceDayYear	25.00	365.00
tblFireplaces	FireplaceHourDay	3.00	4.00
tblFireplaces	NumberWood	12.55	0.00
tblLandUse	LandUseSquareFeet	34,848.00	35,150.00
tblLandUse	LandUseSquareFeet	251,000.00	419,498.00
tblLandUse	LotAcreage	0.16	0.20
tblLandUse	LotAcreage	8.85	1.90
tblLandUse	LotAcreage	2.67	0.25
tblLandUse	LotAcreage	0.27	0.20
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.11	0.20
tblLandUse	LotAcreage	6.61	2.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

Pacific Square - Operations - Los Angeles-South Coast County, Annual

tblLandUse	Population	718.00	804.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblSolidWaste	SolidWasteGenerationRate	115.46	393.94
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	133.62	0.00
tblSolidWaste	SolidWasteGenerationRate	6.30	180.46
tblSolidWaste	SolidWasteGenerationRate	143.81	0.00
tblSolidWaste	SolidWasteGenerationRate	59.50	0.00
tblSolidWaste	SolidWasteGenerationRate	7.48	0.00
tblSolidWaste	SolidWasteGenerationRate	114.66	0.00
tblWater	IndoorWaterUseRate	16,353,660.43	8,540,327.00
tblWater	IndoorWaterUseRate	3,520,991.06	7,961,292.00
tblWater	IndoorWaterUseRate	1,203,257.47	38,279.00
tblWater	IndoorWaterUseRate	1,492,181.52	3,711,648.00
tblWater	IndoorWaterUseRate	1,517,668.56	3,431,000.00
tblWater	IndoorWaterUseRate	527,396.35	40,253.00
tblWater	IndoorWaterUseRate	2,506,042.81	359,892.00
tblWater	OutdoorWaterUseRate	10,309,916.36	5,384,119.00
tblWater	OutdoorWaterUseRate	953,185.08	0.00
tblWater	OutdoorWaterUseRate	224,744.11	508,168.00
tblWater	OutdoorWaterUseRate	737,480.39	23,461.00
tblWater	OutdoorWaterUseRate	914,562.87	2,274,881.00
tblWater	OutdoorWaterUseRate	96,872.46	219,000.00
tblWater	OutdoorWaterUseRate	323,242.93	24,671.00
tblWater	OutdoorWaterUseRate	77,506.48	11,131.00

tblWoodstoves	NumberCatalytic	12.55	0.00
tblWoodstoves	NumberNoncatalytic	12.55	0.00
tblWoodstoves	WoodstoveDayYear	25.00	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	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1483	0.1483	0.0000	0.0000	0.1485
Maximum	**6.0000e-005**	**5.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1483**	**0.1483**	**0.0000**	**0.0000**	**0.1485**

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	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1483	0.1483	0.0000	0.0000	0.1485
Maximum	**6.0000e-005**	**5.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1483**	**0.1483**	**0.0000**	**0.0000**	**0.1485**

	ROG	**NOx**	**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	**1-13-2021**	**4-12-2021**	0.0001	0.0001
		Highest	0.0001	0.0001

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1777	0.8912	2.9705	5.6300e-003		0.0840	0.0840		0.0840	0.0840	0.0000	1,001.5982	1,001.5982	0.0233	0.0183	1,007.6285
Energy	0.0441	0.3911	0.2643	2.4100e-003		0.0305	0.0305		0.0305	0.0305	0.0000	2,117.6179	2,117.6179	0.0778	0.0224	2,126.2263
Mobile	3.1178	13.5201	34.7996	0.1223	10.0480	0.0951	10.1431	2.6933	0.0885	2.7817	0.0000	11,319.8329	11,319.8329	0.5887	0.0000	11,334.5513
Waste						0.0000	0.0000		0.0000	0.0000	116.5980	0.0000	116.5980	6.8907	0.0000	288.8666
Water						0.0000	0.0000		0.0000	0.0000	7.6403	129.8094	137.4497	0.7901	0.0196	163.0542
Total	**5.3396**	**14.8024**	**38.0345**	**0.1304**	**10.0480**	**0.2096**	**10.2576**	**2.6933**	**0.2029**	**2.8962**	**124.2383**	**14,568.8584**	**14,693.0967**	**8.3706**	**0.0603**	**14,920.3268**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1777	0.8912	2.9705	5.6300e-003		0.0840	0.0840		0.0840	0.0840	0.0000	1,001.5982	1,001.5982	0.0233	0.0183	1,007.6285
Energy	0.0441	0.3911	0.2643	2.4100e-003		0.0305	0.0305		0.0305	0.0305	0.0000	2,117.6179	2,117.6179	0.0778	0.0224	2,126.2263
Mobile	3.1178	13.5201	34.7996	0.1223	10.0480	0.0951	10.1431	2.6933	0.0885	2.7817	0.0000	11,319.8329	11,319.8329	0.5887	0.0000	11,334.5513
Waste						0.0000	0.0000		0.0000	0.0000	116.5980	0.0000	116.5980	6.8907	0.0000	288.8666
Water						0.0000	0.0000		0.0000	0.0000	7.6403	129.8094	137.4497	0.7901	0.0196	163.0542
Total	**5.3396**	**14.8024**	**38.0345**	**0.1304**	**10.0480**	**0.2096**	**10.2576**	**2.6933**	**0.2029**	**2.8962**	**124.2383**	**14,568.8584**	**14,693.0967**	**8.3706**	**0.0603**	**14,920.3268**

	ROG	NOx	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	1/13/2021	1/14/2021	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.15

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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

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	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1483	0.1483	0.0000	0.0000	0.1485
Total	**6.0000e-005**	**5.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1483**	**0.1483**	**0.0000**	**0.0000**	**0.1485**

3.2 Demolition - 2021

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated 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	6.0000e-005	5.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1483	0.1483	0.0000	0.0000	0.1485
Total	**6.0000e-005**	**5.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1483**	**0.1483**	**0.0000**	**0.0000**	**0.1485**

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	3.1178	13.5201	34.7996	0.1223	10.0480	0.0951	10.1431	2.6933	0.0885	2.7817	0.0000	11,319.8329	11,319.8329	0.5887	0.0000	11,334.5513
Unmitigated	3.1178	13.5201	34.7996	0.1223	10.0480	0.0951	10.1431	2.6933	0.0885	2.7817	0.0000	11,319.8329	11,319.8329	0.5887	0.0000	11,334.5513

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,669.15	1,603.89	1470.86	5,575,083	5,575,083
City Park	1.51	18.20	13.39	16,094	16,094
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	8,307.03	8,074.99	5801.00	14,336,003	14,336,003
General Office Building	74.63	16.64	7.10	182,654	182,654
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	635.75	791.85	659.20	901,376	901,376
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.34	299.11	145.36	549,349	549,349
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	13,912.87	14,941.71	12,155.12	26,474,280	26,474,280

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Supermarket	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,681.0476	1,681.0476	0.0694	0.0144	1,687.0616
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,681.0476	1,681.0476	0.0694	0.0144	1,687.0616
NaturalGas Mitigated	0.0441	0.3911	0.2643	2.4100e-003		0.0305	0.0305		0.0305	0.0305	0.0000	436.5703	436.5703	8.3700e-003	8.0000e-003	439.1647
NaturalGas Unmitigated	0.0441	0.3911	0.2643	2.4100e-003		0.0305	0.0305		0.0305	0.0305	0.0000	436.5703	436.5703	8.3700e-003	8.0000e-003	439.1647

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 Mid Rise	3.36244e+006	0.0181	0.1549	0.0659	9.9000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	179.4325	179.4325	3.4400e-003	3.2900e-003	180.4988
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	2.67728e+006	0.0144	0.1312	0.1102	7.9000e-004		9.9700e-003	9.9700e-003		9.9700e-003	9.9700e-003	0.0000	142.8697	142.8697	2.7400e-003	2.6200e-003	143.7187
General Office Building	70434.1	3.8000e-004	3.4500e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7586	3.7586	7.0000e-005	7.0000e-005	3.7810
Health Club	456717	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3722	24.3722	4.7000e-004	4.5000e-004	24.5170
High Turnover (Sit Down Restaurant)	1.1538e+006	6.2200e-003	0.0566	0.0475	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.5712	61.5712	1.1800e-003	1.1300e-003	61.9371
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11668.6	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6227	0.6227	1.0000e-005	1.0000e-005	0.6264
Supermarket	448683	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9434	23.9434	4.6000e-004	4.4000e-004	24.0857
Total		**0.0441**	**0.3911**	**0.2644**	**2.4000e-003**		**0.0305**	**0.0305**		**0.0305**	**0.0305**	**0.0000**	**436.5703**	**436.5703**	**8.3700e-003**	**8.0100e-003**	**439.1647**

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 Mid Rise	3.36244e+006	0.0181	0.1549	0.0659	9.9000e-004		0.0125	0.0125		0.0125	0.0125	0.0000	179.4325	179.4325	3.4400e-003	3.2900e-003	180.4988
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	2.67728e+006	0.0144	0.1312	0.1102	7.9000e-004		9.9700e-003	9.9700e-003		9.9700e-003	9.9700e-003	0.0000	142.8697	142.8697	2.7400e-003	2.6200e-003	143.7187
General Office Building	70434.1	3.8000e-004	3.4500e-003	2.9000e-003	2.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	3.7586	3.7586	7.0000e-005	7.0000e-005	3.7810
Health Club	456717	2.4600e-003	0.0224	0.0188	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003	0.0000	24.3722	24.3722	4.7000e-004	4.5000e-004	24.5170
High Turnover (Sit Down Restaurant)	1.1538e+006	6.2200e-003	0.0566	0.0475	3.4000e-004		4.3000e-003	4.3000e-003		4.3000e-003	4.3000e-003	0.0000	61.5712	61.5712	1.1800e-003	1.1300e-003	61.9371
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	11668.6	6.0000e-005	5.7000e-004	4.8000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6227	0.6227	1.0000e-005	1.0000e-005	0.6264
Supermarket	448683	2.4200e-003	0.0220	0.0185	1.3000e-004		1.6700e-003	1.6700e-003		1.6700e-003	1.6700e-003	0.0000	23.9434	23.9434	4.6000e-004	4.4000e-004	24.0857
Total		**0.0441**	**0.3911**	**0.2644**	**2.4000e-003**		**0.0305**	**0.0305**		**0.0305**	**0.0305**	**0.0000**	**436.5703**	**436.5703**	**8.3700e-003**	**8.0100e-003**	**439.1647**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01609e+006	323.7483	0.0134	2.7700e-003	324.9065
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.30415e+006	734.1522	0.0303	6.2700e-003	736.7786
Fast Food Restaurant w/o Drive Thru	512112	163.1699	6.7400e-003	1.3900e-003	163.7537
General Office Building	87890.3	28.0038	1.1600e-003	2.4000e-004	28.1039
Health Club	280086	89.2415	3.6800e-003	7.6000e-004	89.5608
High Turnover (Sit Down Restaurant)	220700	70.3198	2.9000e-003	6.0000e-004	70.5713
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	96052.5	30.6044	1.2600e-003	2.6000e-004	30.7139
Supermarket	758919	241.8078	9.9800e-003	2.0700e-003	242.6729
Total		**1,681.0476**	**0.0694**	**0.0144**	**1,687.0616**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.01609e+006	323.7483	0.0134	2.7700e-003	324.9065
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.30415e+006	734.1522	0.0303	6.2700e-003	736.7786
Fast Food Restaurant w/o Drive Thru	512112	163.1699	6.7400e-003	1.3900e-003	163.7537
General Office Building	87890.3	28.0038	1.1600e-003	2.4000e-004	28.1039
Health Club	280086	89.2415	3.6800e-003	7.6000e-004	89.5608
High Turnover (Sit Down Restaurant)	220700	70.3198	2.9000e-003	6.0000e-004	70.5713
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	96052.5	30.6044	1.2600e-003	2.6000e-004	30.7139
Supermarket	758919	241.8078	9.9800e-003	2.0700e-003	242.6729
Total		**1,681.0476**	**0.0694**	**0.0144**	**1,687.0616**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1777	0.8912	2.9705	5.6300e-003		0.0840	0.0840		0.0840	0.0840	0.0000	1,001.5982	1,001.5982	0.0233	0.0183	1,007.6285
Unmitigated	2.1777	0.8912	2.9705	5.6300e-003		0.0840	0.0840		0.0840	0.0840	0.0000	1,001.5982	1,001.5982	0.0233	0.0183	1,007.6285

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	0.1736					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1008	0.8612	0.3665	5.5000e-003		0.0696	0.0696		0.0696	0.0696	0.0000	997.3408	997.3408	0.0191	0.0183	1,003.2675
Landscaping	0.0794	0.0300	2.6041	1.4000e-004		0.0144	0.0144		0.0144	0.0144	0.0000	4.2574	4.2574	4.1400e-003	0.0000	4.3610
Total	**2.1777**	**0.8912**	**2.9705**	**5.6400e-003**		**0.0840**	**0.0840**		**0.0840**	**0.0840**	**0.0000**	**1,001.5982**	**1,001.5982**	**0.0233**	**0.0183**	**1,007.6285**

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	0.1736					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8239					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1008	0.8612	0.3665	5.5000e-003		0.0696	0.0696		0.0696	0.0696	0.0000	997.3408	997.3408	0.0191	0.0183	1,003.2675
Landscaping	0.0794	0.0300	2.6041	1.4000e-004		0.0144	0.0144		0.0144	0.0144	0.0000	4.2574	4.2574	4.1400e-003	0.0000	4.3610
Total	**2.1777**	**0.8912**	**2.9705**	**5.6400e-003**		**0.0840**	**0.0840**		**0.0840**	**0.0840**	**0.0000**	**1,001.5982**	**1,001.5982**	**0.0233**	**0.0183**	**1,007.6285**

7.0 Water Detail

7.1 Mitigation Measures Water

Pacific Square - Operations - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	137.4497	0.7901	0.0196	163.0542
Unmitigated	137.4497	0.7901	0.0196	163.0542

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.54033 / 5.38412	57.2005	0.2805	7.0400e-003	66.3107
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7.96129 / 0.508168	37.3542	0.2609	6.4200e-003	45.7896
General Office Building	0.038279 / 0.023461	0.2540	1.2600e-003	3.0000e-005	0.2948
Health Club	3.71165 / 2.27488	24.6291	0.1219	3.0600e-003	28.5876
High Turnover (Sit Down Restaurant)	3.431 / 0.219	16.0982	0.1124	2.7700e-003	19.7335
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.040253 / 0.024671	0.2671	1.3200e-003	3.0000e-005	0.3100
Supermarket	0.359892 / 0.011131	1.6467	0.0118	2.9000e-004	2.0279
Total		**137.4497**	**0.7901**	**0.0196**	**163.0542**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.54033 / 5.38412	57.2005	0.2805	7.0400e-003	66.3107
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7.96129 / 0.508168	37.3542	0.2609	6.4200e-003	45.7896
General Office Building	0.038279 / 0.023461	0.2540	1.2600e-003	3.0000e-005	0.2948
Health Club	3.71165 / 2.27488	24.6291	0.1219	3.0600e-003	28.5876
High Turnover (Sit Down Restaurant)	3.431 / 0.219	16.0982	0.1124	2.7700e-003	19.7335
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.040253 / 0.024671	0.2671	1.3200e-003	3.0000e-005	0.3100
Supermarket	0.359892 / 0.011131	1.6467	0.0118	2.9000e-004	2.0279
Total		**137.4497**	**0.7901**	**0.0196**	**163.0542**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	116.5980	6.8907	0.0000	288.8666
Unmitigated	116.5980	6.8907	0.0000	288.8666

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	393.94	79.9663	4.7259	0.0000	198.1130
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	180.46	36.6318	2.1649	0.0000	90.7536
Health Club	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**116.5980**	**6.8907**	**0.0000**	**288.8666**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	393.94	79.9663	4.7259	0.0000	198.1130
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0	0.0000	0.0000	0.0000	0.0000
General Office Building	180.46	36.6318	2.1649	0.0000	90.7536
Health Club	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**116.5980**	**6.8907**	**0.0000**	**288.8666**

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

Pacific Square - Operations

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	6.77	1000sqft	0.20	6,766.00	0
Enclosed Parking with Elevator	983.00	Space	1.90	393,200.00	0
Other Non-Asphalt Surfaces	116.46	1000sqft	0.25	116,461.00	0
City Park	0.80	Acre	0.80	35,150.00	0
Fast Food Restaurant w/o Drive Thru	11.60	1000sqft	0.20	11,602.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.20	5,000.00	0
Apartments Mid Rise	251.00	Dwelling Unit	2.00	419,498.00	804
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
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

Pacific Square - Operations - Los Angeles-South Coast County, Summer

Project Characteristics - See SWAPE comment about intensity factors.

Land Use - Consistent with DEIR's model.

Construction Phase - Consistent with DEIR's model.

Off-road Equipment - Consistent with DEIR's model.

Woodstoves - See SWAPE comment about gas fireplaces.

Energy Use - See SWAPE comment about energy use values.

Water And Wastewater - Water use rates consistent with DEIR's model. See SWAPE comment about wastewater treatment system percentages.

Solid Waste - Consistent with DEIR's model.

Waste Mitigation - See SWAPE comment about waste-related mitigation.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	2/9/2021	1/14/2021
tblFireplaces	FireplaceDayYear	25.00	365.00
tblFireplaces	FireplaceHourDay	3.00	4.00
tblFireplaces	NumberWood	12.55	0.00
tblLandUse	LandUseSquareFeet	34,848.00	35,150.00
tblLandUse	LandUseSquareFeet	251,000.00	419,498.00
tblLandUse	LotAcreage	0.16	0.20
tblLandUse	LotAcreage	8.85	1.90
tblLandUse	LotAcreage	2.67	0.25
tblLandUse	LotAcreage	0.27	0.20
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.11	0.20
tblLandUse	LotAcreage	6.61	2.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

Pacific Square - Operations - Los Angeles-South Coast County, Summer

tblLandUse	Population	718.00	804.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblSolidWaste	SolidWasteGenerationRate	115.46	393.94
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	133.62	0.00
tblSolidWaste	SolidWasteGenerationRate	6.30	180.46
tblSolidWaste	SolidWasteGenerationRate	143.81	0.00
tblSolidWaste	SolidWasteGenerationRate	59.50	0.00
tblSolidWaste	SolidWasteGenerationRate	7.48	0.00
tblSolidWaste	SolidWasteGenerationRate	114.66	0.00
tblWater	IndoorWaterUseRate	16,353,660.43	8,540,327.00
tblWater	IndoorWaterUseRate	3,520,991.06	7,961,292.00
tblWater	IndoorWaterUseRate	1,203,257.47	38,279.00
tblWater	IndoorWaterUseRate	1,492,181.52	3,711,648.00
tblWater	IndoorWaterUseRate	1,517,668.56	3,431,000.00
tblWater	IndoorWaterUseRate	527,396.35	40,253.00
tblWater	IndoorWaterUseRate	2,506,042.81	359,892.00
tblWater	OutdoorWaterUseRate	10,309,916.36	5,384,119.00
tblWater	OutdoorWaterUseRate	953,185.08	0.00
tblWater	OutdoorWaterUseRate	224,744.11	508,168.00
tblWater	OutdoorWaterUseRate	737,480.39	23,461.00
tblWater	OutdoorWaterUseRate	914,562.87	2,274,881.00
tblWater	OutdoorWaterUseRate	96,872.46	219,000.00
tblWater	OutdoorWaterUseRate	323,242.93	24,671.00
tblWater	OutdoorWaterUseRate	77,506.48	11,131.00

tblWoodstoves	NumberCatalytic	12.55	0.00
tblWoodstoves	NumberNoncatalytic	12.55	0.00
tblWoodstoves	WoodstoveDayYear	25.00	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	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457	0.0000	170.8155	170.8155	5.0300e-003	0.0000	170.9413
Maximum	**0.0643**	**0.0442**	**0.6042**	**1.7100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**	**0.0000**	**170.8155**	**170.8155**	**5.0300e-003**	**0.0000**	**170.9413**

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	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457	0.0000	170.8155	170.8155	5.0300e-003	0.0000	170.9413
Maximum	**0.0643**	**0.0442**	**0.6042**	**1.7100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**	**0.0000**	**170.8155**	**170.8155**	**5.0300e-003**	**0.0000**	**170.9413**

	ROG	**NOx**	**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	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Energy	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
Mobile	20.5113	80.7895	217.0698	0.7717	62.2214	0.5786	62.8000	16.6508	0.5380	17.1887		78,679.8612	78,679.8612	3.9628		78,778.9303
Total	**32.8855**	**87.8914**	**241.3588**	**0.8161**	**62.2214**	**1.2422**	**63.4636**	**16.6508**	**1.2015**	**17.8523**	**0.0000**	**87,378.3172**	**87,378.3172**	**4.1653**	**0.1588**	**87,529.7670**

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	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Energy	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
Mobile	20.5113	80.7895	217.0698	0.7717	62.2214	0.5786	62.8000	16.6508	0.5380	17.1887		78,679.8612	78,679.8612	3.9628		78,778.9303
Total	**32.8855**	**87.8914**	**241.3588**	**0.8161**	**62.2214**	**1.2422**	**63.4636**	**16.6508**	**1.2015**	**17.8523**	**0.0000**	**87,378.3172**	**87,378.3172**	**4.1653**	**0.1588**	**87,529.7670**

	ROG	NOx	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	1/13/2021	1/14/2021	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.15

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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

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	0.0643	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	**0.0643**	**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**

3.2 Demolition - 2021

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0643	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	**0.0643**	**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**

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	20.5113	80.7895	217.0698	0.7717	62.2214	0.5786	62.8000	16.6508	0.5380	17.1887		78,679.8612	78,679.8612	3.9628		78,778.9303
Unmitigated	20.5113	80.7895	217.0698	0.7717	62.2214	0.5786	62.8000	16.6508	0.5380	17.1887		78,679.8612	78,679.8612	3.9628		78,778.9303

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,669.15	1,603.89	1470.86	5,575,083	5,575,083
City Park	1.51	18.20	13.39	16,094	16,094
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	8,307.03	8,074.99	5801.00	14,336,003	14,336,003
General Office Building	74.63	16.64	7.10	182,654	182,654
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	635.75	791.85	659.20	901,376	901,376
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.34	299.11	145.36	549,349	549,349
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	13,912.87	14,941.71	12,155.12	26,474,280	26,474,280

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Supermarket	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
NaturalGas Unmitigated	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9212.16	0.0994	0.8490	0.3613	5.4200e-003		0.0686	0.0686		0.0686	0.0686		1,083.7836	1,083.7836	0.0208	0.0199	1,090.2240
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7335.01	0.0791	0.7191	0.6041	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9420	862.9420	0.0165	0.0158	868.0700
General Office Building	192.97	2.0800e-003	0.0189	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003		22.7024	22.7024	4.4000e-004	4.2000e-004	22.8373
Health Club	1251.28	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	3161.1	0.0341	0.3099	0.2603	1.8600e-003		0.0236	0.0236		0.0236	0.0236		371.8936	371.8936	7.1300e-003	6.8200e-003	374.1036
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.9688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1229.27	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.2417**	**2.1432**	**1.4485**	**0.0132**		**0.1670**	**0.1670**		**0.1670**	**0.1670**		**2,636.9119**	**2,636.9119**	**0.0505**	**0.0484**	**2,652.5818**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.21216	0.0994	0.8490	0.3613	5.4200e-003		0.0686	0.0686		0.0686	0.0686		1,083.7836	1,083.7836	0.0208	0.0199	1,090.2240
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7.33501	0.0791	0.7191	0.6041	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9420	862.9420	0.0165	0.0158	868.0700
General Office Building	0.19297	2.0800e-003	0.0189	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003		22.7024	22.7024	4.4000e-004	4.2000e-004	22.8373
Health Club	1.25128	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	3.1611	0.0341	0.3099	0.2603	1.8600e-003		0.0236	0.0236		0.0236	0.0236		371.8936	371.8936	7.1300e-003	6.8200e-003	374.1036
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0319688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1.22927	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.2417**	**2.1432**	**1.4485**	**0.0132**		**0.1670**	**0.1670**		**0.1670**	**0.1670**		**2,636.9119**	**2,636.9119**	**0.0505**	**0.0484**	**2,652.5818**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Unmitigated	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9941					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5522	4.7188	2.0080	0.0301		0.3815	0.3815		0.3815	0.3815	0.0000	6,024.0000	6,024.0000	0.1155	0.1104	6,059.7976
Landscaping	0.6351	0.2399	20.8325	1.1000e-003		0.1151	0.1151		0.1151	0.1151		37.5441	37.5441	0.0365		38.4573
Total	**12.1325**	**4.9587**	**22.8405**	**0.0312**		**0.4966**	**0.4966**		**0.4966**	**0.4966**	**0.0000**	**6,061.5441**	**6,061.5441**	**0.1520**	**0.1104**	**6,098.2550**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9941					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5522	4.7188	2.0080	0.0301		0.3815	0.3815		0.3815	0.3815	0.0000	6,024.0000	6,024.0000	0.1155	0.1104	6,059.7976
Landscaping	0.6351	0.2399	20.8325	1.1000e-003		0.1151	0.1151		0.1151	0.1151		37.5441	37.5441	0.0365		38.4573
Total	**12.1325**	**4.9587**	**22.8405**	**0.0312**		**0.4966**	**0.4966**		**0.4966**	**0.4966**	**0.0000**	**6,061.5441**	**6,061.5441**	**0.1520**	**0.1104**	**6,098.2550**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Pacific Square - Operations

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	6.77	1000sqft	0.20	6,766.00	0
Enclosed Parking with Elevator	983.00	Space	1.90	393,200.00	0
Other Non-Asphalt Surfaces	116.46	1000sqft	0.25	116,461.00	0
City Park	0.80	Acre	0.80	35,150.00	0
Fast Food Restaurant w/o Drive Thru	11.60	1000sqft	0.20	11,602.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	5.00	1000sqft	0.20	5,000.00	0
Apartments Mid Rise	251.00	Dwelling Unit	2.00	419,498.00	804
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
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

Pacific Square - Operations - Los Angeles-South Coast County, Winter

Project Characteristics - See SWAPE comment about intensity factors.

Land Use - Consistent with DEIR's model.

Construction Phase - Consistent with DEIR's model.

Off-road Equipment - Consistent with DEIR's model.

Woodstoves - See SWAPE comment about gas fireplaces.

Energy Use - See SWAPE comment about energy use values.

Water And Wastewater - Water use rates consistent with DEIR's model. See SWAPE comment about wastewater treatment system percentages.

Solid Waste - Consistent with DEIR's model.

Waste Mitigation - See SWAPE comment about waste-related mitigation.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	2/9/2021	1/14/2021
tblFireplaces	FireplaceDayYear	25.00	365.00
tblFireplaces	FireplaceHourDay	3.00	4.00
tblFireplaces	NumberWood	12.55	0.00
tblLandUse	LandUseSquareFeet	34,848.00	35,150.00
tblLandUse	LandUseSquareFeet	251,000.00	419,498.00
tblLandUse	LotAcreage	0.16	0.20
tblLandUse	LotAcreage	8.85	1.90
tblLandUse	LotAcreage	2.67	0.25
tblLandUse	LotAcreage	0.27	0.20
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.11	0.20
tblLandUse	LotAcreage	6.61	2.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10

Pacific Square - Operations - Los Angeles-South Coast County, Winter

tblLandUse	Population	718.00	804.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblSolidWaste	SolidWasteGenerationRate	115.46	393.94
tblSolidWaste	SolidWasteGenerationRate	0.07	0.00
tblSolidWaste	SolidWasteGenerationRate	133.62	0.00
tblSolidWaste	SolidWasteGenerationRate	6.30	180.46
tblSolidWaste	SolidWasteGenerationRate	143.81	0.00
tblSolidWaste	SolidWasteGenerationRate	59.50	0.00
tblSolidWaste	SolidWasteGenerationRate	7.48	0.00
tblSolidWaste	SolidWasteGenerationRate	114.66	0.00
tblWater	IndoorWaterUseRate	16,353,660.43	8,540,327.00
tblWater	IndoorWaterUseRate	3,520,991.06	7,961,292.00
tblWater	IndoorWaterUseRate	1,203,257.47	38,279.00
tblWater	IndoorWaterUseRate	1,492,181.52	3,711,648.00
tblWater	IndoorWaterUseRate	1,517,668.56	3,431,000.00
tblWater	IndoorWaterUseRate	527,396.35	40,253.00
tblWater	IndoorWaterUseRate	2,506,042.81	359,892.00
tblWater	OutdoorWaterUseRate	10,309,916.36	5,384,119.00
tblWater	OutdoorWaterUseRate	953,185.08	0.00
tblWater	OutdoorWaterUseRate	224,744.11	508,168.00
tblWater	OutdoorWaterUseRate	737,480.39	23,461.00
tblWater	OutdoorWaterUseRate	914,562.87	2,274,881.00
tblWater	OutdoorWaterUseRate	96,872.46	219,000.00
tblWater	OutdoorWaterUseRate	323,242.93	24,671.00
tblWater	OutdoorWaterUseRate	77,506.48	11,131.00

tblWoodstoves	NumberCatalytic	12.55	0.00
tblWoodstoves	NumberNoncatalytic	12.55	0.00
tblWoodstoves	WoodstoveDayYear	25.00	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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457	0.0000	160.8377	160.8377	4.7300e-003	0.0000	160.9560
Maximum	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**	**0.0000**	**160.8377**	**160.8377**	**4.7300e-003**	**0.0000**	**160.9560**

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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457	0.0000	160.8377	160.8377	4.7300e-003	0.0000	160.9560
Maximum	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**	**0.0000**	**160.8377**	**160.8377**	**4.7300e-003**	**0.0000**	**160.9560**

	ROG	**NOx**	**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	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Energy	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
Mobile	19.8317	81.9122	210.7498	0.7330	62.2214	0.5828	62.8042	16.6508	0.5419	17.1927		74,760.9523	74,760.9523	3.9949		74,860.8244
Total	**32.2059**	**89.0141**	**235.0388**	**0.7774**	**62.2214**	**1.2464**	**63.4678**	**16.6508**	**1.2055**	**17.8563**	**0.0000**	**83,459.4082**	**83,459.4082**	**4.1974**	**0.1588**	**83,611.6611**

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	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Energy	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
Mobile	19.8317	81.9122	210.7498	0.7330	62.2214	0.5828	62.8042	16.6508	0.5419	17.1927		74,760.9523	74,760.9523	3.9949		74,860.8244
Total	**32.2059**	**89.0141**	**235.0388**	**0.7774**	**62.2214**	**1.2464**	**63.4678**	**16.6508**	**1.2055**	**17.8563**	**0.0000**	**83,459.4082**	**83,459.4082**	**4.1974**	**0.1588**	**83,611.6611**

	ROG	NOx	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	1/13/2021	1/14/2021	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.15

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40

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

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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**160.8377**	**160.8377**	**4.7300e-003**		**160.9560**

3.2 Demolition - 2021

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**160.8377**	**160.8377**	**4.7300e-003**		**160.9560**

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	19.8317	81.9122	210.7498	0.7330	62.2214	0.5828	62.8042	16.6508	0.5419	17.1927		74,760.9523	74,760.9523	3.9949		74,860.8244
Unmitigated	19.8317	81.9122	210.7498	0.7330	62.2214	0.5828	62.8042	16.6508	0.5419	17.1927		74,760.9523	74,760.9523	3.9949		74,860.8244

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,669.15	1,603.89	1470.86	5,575,083	5,575,083
City Park	1.51	18.20	13.39	16,094	16,094
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	8,307.03	8,074.99	5801.00	14,336,003	14,336,003
General Office Building	74.63	16.64	7.10	182,654	182,654
Health Club	830.92	526.61	674.48	1,636,375	1,636,375
High Turnover (Sit Down Restaurant)	635.75	791.85	659.20	901,376	901,376
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	315.34	299.11	145.36	549,349	549,349
Supermarket	2,078.54	3,610.40	3383.73	3,277,344	3,277,344
Total	13,912.87	14,941.71	12,155.12	26,474,280	26,474,280

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
City Park	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Fast Food Restaurant w/o Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Health Club	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Other Non-Asphalt Surfaces	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Strip Mall	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Supermarket	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818
NaturalGas Unmitigated	0.2417	2.1432	1.4485	0.0132		0.1670	0.1670		0.1670	0.1670		2,636.9119	2,636.9119	0.0505	0.0483	2,652.5818

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9212.16	0.0994	0.8490	0.3613	5.4200e-003		0.0686	0.0686		0.0686	0.0686		1,083.7836	1,083.7836	0.0208	0.0199	1,090.2240
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7335.01	0.0791	0.7191	0.6041	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9420	862.9420	0.0165	0.0158	868.0700
General Office Building	192.97	2.0800e-003	0.0189	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003		22.7024	22.7024	4.4000e-004	4.2000e-004	22.8373
Health Club	1251.28	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	3161.1	0.0341	0.3099	0.2603	1.8600e-003		0.0236	0.0236		0.0236	0.0236		371.8936	371.8936	7.1300e-003	6.8200e-003	374.1036
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.9688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1229.27	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.2417**	**2.1432**	**1.4485**	**0.0132**		**0.1670**	**0.1670**		**0.1670**	**0.1670**		**2,636.9119**	**2,636.9119**	**0.0505**	**0.0484**	**2,652.5818**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	9.21216	0.0994	0.8490	0.3613	5.4200e-003		0.0686	0.0686		0.0686	0.0686		1,083.7836	1,083.7836	0.0208	0.0199	1,090.2240
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	7.33501	0.0791	0.7191	0.6041	4.3100e-003		0.0547	0.0547		0.0547	0.0547		862.9420	862.9420	0.0165	0.0158	868.0700
General Office Building	0.19297	2.0800e-003	0.0189	0.0159	1.1000e-004		1.4400e-003	1.4400e-003		1.4400e-003	1.4400e-003		22.7024	22.7024	4.4000e-004	4.2000e-004	22.8373
Health Club	1.25128	0.0135	0.1227	0.1031	7.4000e-004		9.3200e-003	9.3200e-003		9.3200e-003	9.3200e-003		147.2094	147.2094	2.8200e-003	2.7000e-003	148.0842
High Turnover (Sit Down Restaurant)	3.1611	0.0341	0.3099	0.2603	1.8600e-003		0.0236	0.0236		0.0236	0.0236		371.8936	371.8936	7.1300e-003	6.8200e-003	374.1036
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0319688	3.4000e-004	3.1300e-003	2.6300e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		3.7610	3.7610	7.0000e-005	7.0000e-005	3.7834
Supermarket	1.22927	0.0133	0.1205	0.1012	7.2000e-004		9.1600e-003	9.1600e-003		9.1600e-003	9.1600e-003		144.6199	144.6199	2.7700e-003	2.6500e-003	145.4793
Total		**0.2417**	**2.1432**	**1.4485**	**0.0132**		**0.1670**	**0.1670**		**0.1670**	**0.1670**		**2,636.9119**	**2,636.9119**	**0.0505**	**0.0484**	**2,652.5818**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550
Unmitigated	12.1325	4.9587	22.8405	0.0312		0.4966	0.4966		0.4966	0.4966	0.0000	6,061.5441	6,061.5441	0.1520	0.1104	6,098.2550

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9941					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5522	4.7188	2.0080	0.0301		0.3815	0.3815		0.3815	0.3815	0.0000	6,024.0000	6,024.0000	0.1155	0.1104	6,059.7976
Landscaping	0.6351	0.2399	20.8325	1.1000e-003		0.1151	0.1151		0.1151	0.1151		37.5441	37.5441	0.0365		38.4573
Total	**12.1325**	**4.9587**	**22.8405**	**0.0312**		**0.4966**	**0.4966**		**0.4966**	**0.4966**	**0.0000**	**6,061.5441**	**6,061.5441**	**0.1520**	**0.1104**	**6,098.2550**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.9511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.9941					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5522	4.7188	2.0080	0.0301		0.3815	0.3815		0.3815	0.3815	0.0000	6,024.0000	6,024.0000	0.1155	0.1104	6,059.7976
Landscaping	0.6351	0.2399	20.8325	1.1000e-003		0.1151	0.1151		0.1151	0.1151		37.5441	37.5441	0.0365		38.4573
Total	**12.1325**	**4.9587**	**22.8405**	**0.0312**		**0.4966**	**0.4966**		**0.4966**	**0.4966**	**0.0000**	**6,061.5441**	**6,061.5441**	**0.1520**	**0.1104**	**6,098.2550**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment G

Start date and time 01/13/21 12:30:15

AERSCREEN 16216

Pacific Square Construction Phase 1

Pacific Square Construction Phase 1

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	----------	----------
Emission Rate:	0.975E-04 g/s	0.774E-03 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	260.00 meters	853.02 feet
Area Source Width:	91.00 meters	298.56 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	40143	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters


 Dominant Surface Profile: Urban

 Dominant Climate Type:    Average Moisture


 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON





 AERSCREEN output file:

 2021.01.13_PacificSquare_Phase1.out



 *** AERSCREEN Run is Ready to Begin





 No terrain used, AERMAP will not be run
**************************************************


SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/13/21 12:31:05
 *******************************************


  Running AERMOD

 Processing Winter


Processing surface roughness sector  1
```

```
****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *****************************************

  Running AERMOD
 Processing Spring

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1


****************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *******************************************

  Running AERMOD
 Processing Autumn

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


FLOWSECTOR   ended 01/13/21 12:31:15


REFINE       started 01/13/21 12:31:15


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


REFINE       ended 01/13/21 12:31:17


 ***********************************************

 AERSCREEN Finished Successfully

 With no errors or warnings

 Check log file for details

 ***********************************************


 Ending date and time  01/13/21 12:31:18
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.12203E+00         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13038E+00        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13756E+00        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14533E+00        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15100E+00       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15599E+00       125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.15711E+00       131.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12220E+00       150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94341E-01       175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75972E-01       200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64402E-01       225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55612E-01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48703E-01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43166E-01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38632E-01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34883E-01       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

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310.0    2.0
   0.31719E-01       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29044E-01       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26712E-01       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24705E-01       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22941E-01       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21385E-01       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20013E-01       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18793E-01       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17679E-01       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16676E-01       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15772E-01       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14952E-01       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14207E-01       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13524E-01       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12891E-01       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12309E-01       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11773E-01       775.00      0.00   0.0        Winter       0-360   10011001
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-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.11273E-01 800.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.10809E-01 825.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.10379E-01 850.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.99778E-02 875.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.96035E-02 900.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.92535E-02 925.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.89219E-02 950.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.86103E-02 975.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.83174E-02 1000.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.80416E-02 1025.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.77816E-02 1050.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.75360E-02 1075.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.73038E-02 1100.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.70840E-02 1125.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.68755E-02 1150.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0
0.66776E-02 1175.00 0.00 0.0 Winter 0-360 10011001
-1.30 0.043 -9.000 0.020 -999. 21. 6.0 1.000 1.50 0.35 0.50 10.0
310.0 2.0

```
   0.64896E-02      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63102E-02      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61389E-02      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59756E-02      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58198E-02      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56709E-02      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55287E-02      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53920E-02      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52608E-02      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51350E-02      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50144E-02      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48986E-02      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47875E-02      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46806E-02      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45779E-02      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44791E-02      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43839E-02      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.42925E-02      1625.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42041E-02      1650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41189E-02      1675.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40366E-02      1700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39572E-02      1725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38804E-02      1750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38061E-02      1775.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37343E-02      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36919E-02      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36238E-02      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35577E-02      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34937E-02      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34317E-02      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33716E-02      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33133E-02      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32566E-02      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32017E-02      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31483E-02      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30965E-02      2075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30461E-02      2100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29971E-02      2125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29495E-02      2150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29032E-02      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28581E-02      2200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28142E-02      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27715E-02      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27299E-02      2275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26893E-02      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26498E-02      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26113E-02      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25737E-02      2375.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25371E-02      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25013E-02      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.24664E-02      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24324E-02      2475.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23991E-02      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23667E-02      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23350E-02      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23040E-02      2575.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22737E-02      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22441E-02      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22152E-02      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21869E-02      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21592E-02      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21322E-02      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21057E-02      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20797E-02      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20544E-02      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20295E-02      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20052E-02      2850.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.19814E-02      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19580E-02      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19352E-02      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19128E-02      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18908E-02      2975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18693E-02      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18482E-02      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18275E-02      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18071E-02      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17872E-02      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17677E-02      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17485E-02      3150.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17297E-02      3174.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17113E-02      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16931E-02      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16753E-02      3250.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16578E-02      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16407E-02      3300.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16238E-02      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16073E-02      3350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15910E-02      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15750E-02      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15593E-02      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15439E-02      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15287E-02      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15138E-02      3500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14991E-02      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14847E-02      3550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14705E-02      3575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14565E-02      3600.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14428E-02      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14293E-02      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14160E-02      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.14030E-02      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13901E-02      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13774E-02      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13649E-02      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13527E-02      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13406E-02      3825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13287E-02      3850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13170E-02      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13055E-02      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12941E-02      3925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12829E-02      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12719E-02      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12610E-02      4000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12503E-02      4025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12398E-02      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12294E-02      4075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12191E-02      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.12090E-02      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11991E-02      4150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11893E-02      4175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11796E-02      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11701E-02      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11607E-02      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11514E-02      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11422E-02      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11332E-02      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11243E-02      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11155E-02      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11069E-02      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10983E-02      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10899E-02      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10816E-02      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10734E-02      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10653E-02      4525.00      0.00   5.0        Winter       0-360   10011001
```

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10573E-02      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10494E-02      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10416E-02      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10339E-02      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10263E-02      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10188E-02      4675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10114E-02      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10041E-02      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99687E-03      4750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98974E-03      4775.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98269E-03      4800.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97574E-03      4825.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96887E-03      4850.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96208E-03      4875.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95537E-03      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94874E-03      4924.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

```
   0.94220E-03      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93573E-03      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92934E-03      5000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

Start date and time 01/13/21 12:31:33

AERSCREEN 16216

Pacific Square Construction Phase 2

Pacific Square Construction Phase 2

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	----------	----------
Emission Rate:	0.941E-04 g/s	0.747E-03 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	260.00 meters	853.02 feet
Area Source Width:	91.00 meters	298.56 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	40143	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters


 Dominant Surface Profile: Urban

 Dominant Climate Type:    Average Moisture


 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON





 AERSCREEN output file:

 2021.01.13_PacificSquare_Phase2.out



 *** AERSCREEN Run is Ready to Begin





 No terrain used, AERMAP will not be run
**************************************************


SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/13/21 12:32:24
 *******************************************


  Running AERMOD

 Processing Winter


Processing surface roughness sector  1
```

```
****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *****************************************

  Running AERMOD
 Processing Spring

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1


****************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *******************************************

  Running AERMOD
 Processing Autumn

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


FLOWSECTOR   ended 01/13/21 12:32:34


REFINE       started 01/13/21 12:32:34


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


REFINE       ended 01/13/21 12:32:36


 ***********************************************

 AERSCREEN Finished Successfully

 With no errors or warnings

 Check log file for details

 ***********************************************


 Ending date and time  01/13/21 12:32:38
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.11777E+00         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12582E+00        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13275E+00        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14025E+00        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14572E+00       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15054E+00       125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.15162E+00       131.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11793E+00       150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91044E-01       175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73317E-01       200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62152E-01       225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53668E-01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47001E-01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41657E-01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37282E-01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33665E-01       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.30611E-01       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28029E-01       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25778E-01       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23842E-01       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22139E-01       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20637E-01       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19313E-01       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18137E-01       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17061E-01       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16093E-01       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15221E-01       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14430E-01       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13710E-01       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13051E-01       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12440E-01       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11879E-01       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11361E-01       775.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10879E-01   800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10432E-01   825.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10016E-01   850.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.96291E-02   875.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.92679E-02   900.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.89302E-02   925.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.86102E-02   950.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.83094E-02   975.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.80267E-02   1000.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.77606E-02   1025.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.75097E-02   1050.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.72727E-02   1075.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.70486E-02   1100.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.68364E-02   1125.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.66353E-02   1150.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.64443E-02   1175.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

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   0.62629E-02      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60897E-02      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59244E-02      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57668E-02      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56164E-02      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54728E-02      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53355E-02      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52036E-02      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50769E-02      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49556E-02      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48391E-02      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.47275E-02      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46202E-02      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45171E-02      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.44180E-02      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43226E-02      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42307E-02      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.41425E-02      1625.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40572E-02      1650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39749E-02      1675.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38956E-02      1700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38189E-02      1725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37448E-02      1750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36731E-02      1775.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36038E-02      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35629E-02      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34971E-02      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34334E-02      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33716E-02      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33118E-02      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32538E-02      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31975E-02      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31429E-02      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30898E-02      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30383E-02      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29883E-02      2075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29397E-02      2100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28924E-02      2125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28465E-02      2150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28017E-02      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27582E-02      2200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27159E-02      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26746E-02      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26345E-02      2275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25953E-02      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25572E-02      2325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25200E-02      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24838E-02      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24484E-02      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24139E-02      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.23803E-02      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23474E-02      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23153E-02      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22840E-02      2525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22534E-02      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22235E-02      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21943E-02      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21657E-02      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21378E-02      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21105E-02      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20838E-02      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20577E-02      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20321E-02      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20071E-02      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19826E-02      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19586E-02      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19351E-02      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.19121E-02      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18896E-02      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18675E-02      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18459E-02      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18247E-02      2975.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18040E-02      3000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17836E-02      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17636E-02      3050.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17440E-02      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17248E-02      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17059E-02      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16874E-02      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16693E-02      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16514E-02      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16340E-02      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16168E-02      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15999E-02      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15834E-02      3300.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15671E-02      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15511E-02      3350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15354E-02      3375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15200E-02      3400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15048E-02      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14899E-02      3450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14753E-02      3475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14609E-02      3500.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14467E-02      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14328E-02      3550.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14191E-02      3575.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14056E-02      3600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13924E-02      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13794E-02      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13665E-02      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

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   0.13539E-02      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13415E-02      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13293E-02      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13173E-02      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13054E-02      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12938E-02      3825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12823E-02      3850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12710E-02      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12598E-02      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12489E-02      3925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12381E-02      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12274E-02      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12170E-02      4000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12066E-02      4025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11964E-02      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11864E-02      4075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11765E-02      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.11668E-02      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11572E-02      4150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11477E-02      4175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11384E-02      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11292E-02      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11201E-02      4250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11112E-02      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11023E-02      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10936E-02      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10850E-02      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10766E-02      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10682E-02      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10600E-02      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10518E-02      4450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10438E-02      4475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10359E-02      4500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10280E-02      4525.00      0.00   0.0        Winter       0-360   10011001
```

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10203E-02      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10127E-02      4575.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10052E-02      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99777E-03      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99044E-03      4650.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98321E-03      4675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97606E-03      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96900E-03      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96203E-03      4750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95515E-03      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94836E-03      4800.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94164E-03      4825.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93501E-03      4850.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92846E-03      4875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92199E-03      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91559E-03      4924.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

```
   0.90927E-03      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90303E-03      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89686E-03      5000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

Start date and time 01/13/21 12:32:48

AERSCREEN 16216

Pacific Square Operation

Pacific Square Operation

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	----------	----------
Emission Rate:	0.603E-02 g/s	0.479E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	260.00 meters	853.02 feet
Area Source Width:	91.00 meters	298.56 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	40143	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

```
 Anemometer Height:   10.000 meters


 Dominant Surface Profile: Urban

 Dominant Climate Type:    Average Moisture


 Surface friction velocity (u*): not adjusted

DEBUG OPTION ON





 AERSCREEN output file:

 2021.01.13_PacificSquare_Operation.out



 *** AERSCREEN Run is Ready to Begin





 No terrain used, AERMAP will not be run
**************************************************


SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...
```

```
Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season              Albedo     Bo       zo

Winter               0.35     1.50     1.000

Spring               0.14     1.00     1.000

Summer               0.16     2.00     1.000

Autumn               0.18     2.00     1.000


Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl


Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl


Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl


Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl


Buildings and/or terrain present or rectangular area source, skipping probe


FLOWSECTOR   started 01/13/21 12:33:40
 *******************************************


  Running AERMOD

 Processing Winter


Processing surface roughness sector  1
```

```
****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *****************************************

  Running AERMOD
 Processing Spring

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1


****************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
****************************************************
Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 *******************************************

  Running AERMOD
 Processing Autumn

Processing surface roughness sector  1

****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

****************************************************
Processing wind flow sector   2
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


****************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


FLOWSECTOR   ended 01/13/21 12:33:50


REFINE       started 01/13/21 12:33:50


 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


REFINE       ended 01/13/21 12:33:51


 ***********************************************

 AERSCREEN Finished Successfully

 With no errors or warnings

 Check log file for details

 ***********************************************


 Ending date and time  01/13/21 12:33:53
```

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.75480E+01         1.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80644E+01        25.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85086E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89894E+01        75.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93400E+01       100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96487E+01       125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.97180E+01       131.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75584E+01       150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58354E+01       175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46992E+01       200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39835E+01       225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34398E+01       250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30125E+01       275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26700E+01       300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23895E+01       325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21577E+01       350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.19619E+01       375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17965E+01       400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16522E+01       425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15281E+01       450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14190E+01       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13227E+01       500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12379E+01       525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11624E+01       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10935E+01       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10315E+01       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97556E+00       625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92487E+00       650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87875E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83652E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79735E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76136E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72818E+00       775.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69728E+00       800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66861E+00       825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64197E+00       850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61717E+00       875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59401E+00       900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57236E+00       925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55186E+00       950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53258E+00       975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.51446E+00      1000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.49740E+00      1025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.48132E+00      1050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46613E+00      1075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45177E+00      1100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43817E+00      1125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42528E+00      1150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41304E+00      1175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.40141E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39031E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37971E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36961E+00      1275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35998E+00      1300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35077E+00      1325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34197E+00      1350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33352E+00      1375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32540E+00      1400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31762E+00      1425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31016E+00      1450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30300E+00      1475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29612E+00      1500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28952E+00      1525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28316E+00      1550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27705E+00      1575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27116E+00      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.26551E+00      1625.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26004E+00      1650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25477E+00      1675.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24968E+00      1700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24477E+00      1725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24002E+00      1750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23542E+00      1775.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23098E+00      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22836E+00      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22414E+00      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22006E+00      1875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21610E+00      1900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21226E+00      1925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20855E+00      1950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20494E+00      1975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20144E+00      2000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19804E+00      2025.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19474E+00      2050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19153E+00      2075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18841E+00      2100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18539E+00      2125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18244E+00      2150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17957E+00      2175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17678E+00      2200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17407E+00      2225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17143E+00      2250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16885E+00      2275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16634E+00      2300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16390E+00      2325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16152E+00      2350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15919E+00      2375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15693E+00      2400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15472E+00      2425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.15256E+00      2450.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15045E+00      2475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14840E+00      2500.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14639E+00      2525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14443E+00      2550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14251E+00      2575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14064E+00      2600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13881E+00      2625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13702E+00      2650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13527E+00      2675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13356E+00      2700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13188E+00      2725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13024E+00      2750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12864E+00      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12707E+00      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12553E+00      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12403E+00      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.12256E+00      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12111E+00      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11970E+00      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11831E+00      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11695E+00      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11562E+00      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11432E+00      3025.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11304E+00      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11178E+00      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11055E+00      3100.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10934E+00      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10815E+00      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10699E+00      3174.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10585E+00      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10473E+00      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10362E+00      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10254E+00      3275.00      0.00   0.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10148E+00      3300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10044E+00      3325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99416E-01      3350.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98410E-01      3375.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97421E-01      3400.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96449E-01      3425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95494E-01      3450.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94555E-01      3475.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93633E-01      3500.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92725E-01      3525.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91833E-01      3550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90956E-01      3575.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90092E-01      3600.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89243E-01      3625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88408E-01      3650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87586E-01      3675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.86778E-01      3700.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85982E-01      3724.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85199E-01      3750.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84428E-01      3775.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83669E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82922E-01      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82186E-01      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81461E-01      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80748E-01      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80045E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79353E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78671E-01      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.77999E-01      4000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.77337E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76685E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.76042E-01      4075.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75408E-01      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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310.0    2.0
   0.74784E-01      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74168E-01      4149.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73561E-01      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72963E-01      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72373E-01      4225.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71792E-01      4250.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.71218E-01      4275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70652E-01      4300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.70094E-01      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69544E-01      4350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69001E-01      4375.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68465E-01      4400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67937E-01      4425.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67415E-01      4449.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66900E-01      4475.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.66393E-01      4500.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65891E-01      4525.00      0.00  10.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65397E-01      4550.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64909E-01      4575.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64426E-01      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63951E-01      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63481E-01      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63017E-01      4675.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62559E-01      4700.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62107E-01      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61660E-01      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61219E-01      4775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60784E-01      4800.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60353E-01      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59928E-01      4850.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59508E-01      4875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59093E-01      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58683E-01      4924.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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   0.58279E-01      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57878E-01      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57483E-01      5000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
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SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

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

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

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

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Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

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Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

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Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

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Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

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Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The Southern District of Illinois
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 3:19-cv-00302-SMY-GCS
Rosenfeld Deposition. 2-19-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, *Plaintiff,* vs. Marathon Petroleum, LP, *Defendant.*
Case No.: 1716-CV10006
Rosenfeld Deposition. 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case: No 1:19-cv-00315-RHW
Rosenfeld Deposition, 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

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

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

P: (626) 381-9248
F: (626) 389-5414
E: mitch@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

155 South El Molino Avenue
Suite 104
Pasadena, California 91101

VIA U.S. MAIL & E-MAIL

February 8, 2020

Matt Chang, Senior Planner
City of San Gabriel Planning Division
425 South Mission Drive
San Gabriel, CA 91776
Em: mchang@sgch.org

Re: Pacific Square San Gabriel Mixed-Use Project Draft Environmental Impact Report (SCH No. 2018081085)

Dear Mr. Chang,

On behalf of the Southwest Regional Council of Carpenters ("**Commenter**" or "**Carpenters**"), my Office is submitting these supplemental comments on the City of San Gabriel's ("**City**" or "**Lead Agency**") Draft Environmental Impact Report ("**DEIR**") (SCH No. 2018081085) for the Pacific Square San Gabriel Mixed-Use Project ("**Project**").

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects. Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts. 6-1

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

Commenters expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

Commenters incorporates by reference all comments raising issues regarding the EIR submitted prior to certification of the EIR for the Project. *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). 6-1

Community benefits such as local hire and skilled and trained workforce requirements 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 providing localized economic benefits. Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the UC Berkeley Center for Labor Research and Education concluded: 6-2

> . . . labor 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]

The City should also require the Project to be built to standards exceeding the current 2019 California Green Building Code to mitigate the Project's environmental impacts and to advance progress towards the State of California's environmental goals.

I. EXPERTS

Norman Marshall, President of Smart Mobility, Inc., is a transportation planning and modeling expert who specializes in analyzing the relationships between the built environment and travel behavior, and doing planning that coordinates multi-modal transportation with land use and community needs. 6-3

Mr. Marshall helped found Smart Mobility, Inc. in 2001. Prior to this, he was at RSG for 14 years where he developed a national practice in travel demand modeling. He specializes in analyzing the relationships between the built environment and travel

[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

behavior, and doing planning that coordinates multi-modal transportation with land use and community needs.

Mr. Marshall's company, Smart Mobility, has completed transportation projects in over 30 states for a wide range of clients including state Departments of Transportation, Metropolitan Planning Organizations, Cities, transit agencies, and public interest groups.

Mr. Marshall graduated from Worcester Polytechnic Institute in 1977 with a B.S. in Mathematics and from Dartmouth College in 1982 with a M.S. in Engineering Sciences. He has many peer-reviewed publications and presentations. Mr. Marshall is co-leader of the Congress for the New Urbanism project for Transportation Modeling Reform. Mr. Marshall's curriculum vitae is provided along with his comment letter regarding the Project's transportation impacts, attached hereto as Exhibit A.

6-3

II. THE DEIR'S TRANSPORTATION ANALYSIS IS NOT SUPPORTED BY SUBSTANTIAL EVIDENCE

Mr. Marshall made the following findings in his review of the DEIR's transportation analysis[2], indicating that it has failed to support its conclusion of a less than significant impact relating to transportation (vehicle miles traveled) under CEQA Guidelines sec. 15064.3:

- The total VMT per service area metric used to exempt the project from VMT analysis is invalid;
- The project Transportation Analysis Zone (TAZ) fails to satisfy the non-residential VMT screening test;
- The project is not located in a low residential VMT area;
- The project is not located in an area well served by transit; and
- The DEIR should have done a valid VMT estimate and mitigated significant impacts as necessary.

Commenters refer the City to Mr. Marshall's full analysis attached to this letter as Exhibit A. For all of the reasons described in Mr. Marshall's comments, the DEIR's transportation analysis is not supported by substantial evidence.

6-4

[2] Smart Mobility, Comments on the Pacific Square San Gabriel Mixed-Use Project (Feb. 2, 2021). Attached as Exhibit A.

Please contact my Office if you have any questions or concerns. 6-5

Sincerely,

Mitchell M. Tsai
Attorneys for Southwest Regional
Council of Carpenters

Attached:

Smart Mobility February 2, 2021 Letter to Mitchell M. Tsai, Comments on the Pacific Square San Gabriel Mixed-Use Project (Feb. 2, 2021) (Exhibit A); and

Norm Marshall CV (Exhibit B).

EXHIBIT A

794 Sawnee Bean Road
Thetford Center VT 05075

Norman Marshall, President
(802) 356-2969

nmarshall@smartmobility.com

February 2, 2021

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

Subject: Comments on the Pacific Square San Gabriel Mixed-Use Project

Dear Mr. Tsai,

I have reviewed vehicle miles traveled (VMT) impacts in the *Pacific Square San Gabriel Mixed-Use Project Draft Environmental Impact Report* ("DEIR"). I make the following findings:

1) The total VMT per service area metric used to exempt the project from VMT analysis is invalid.
2) The project Transportation Analysis Zone (TAZ) fails to satisfy the non-residential VMT screening test. 6-6
3) The project is not located in a low residential VMT area.
4) The project is not located in an area well served by transit.
5) The DEIR should have done a valid VMT estimate and mitigated significant impacts as necessary.

The Total VMT Per Service Area Metric Used to Exempt the Project from VMT Analysis is Invalid

The DEIR (p. 3-14-3) references an Office Policy and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*. The OPR *Technical Advisory* states:

> *In summary, achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals*. (p. 12)

The DEIR (p. 3-14-5) also references the City of Gabriel's VMT thresholds and guidelines:

> *On July 7, 2020, the City, as a member of the San Gabriel Valley Council of Governments (SGVCOG), adopted the following VMT thresholds and guidelines, which are based on OPR guidance. The City's adopted VMT thresholds state that proposed land uses must achieve a 15 percent reduction in VMT per capita, VMT per worker, or VMT per service population as compared to the existing Baseline VMT, defined as the existing SGVCOG regional average.*

The OPR guidance specifies thresholds for "per capita (residential) or per employee (office) VMT." The SGVCOG approach developed by consultant Fehr and Peers includes the two OPR categories but also adds a third category VMT "per service population" where service population is defined as "population plus employment."[1] 6-7

The DEIR applies this third category, stating:

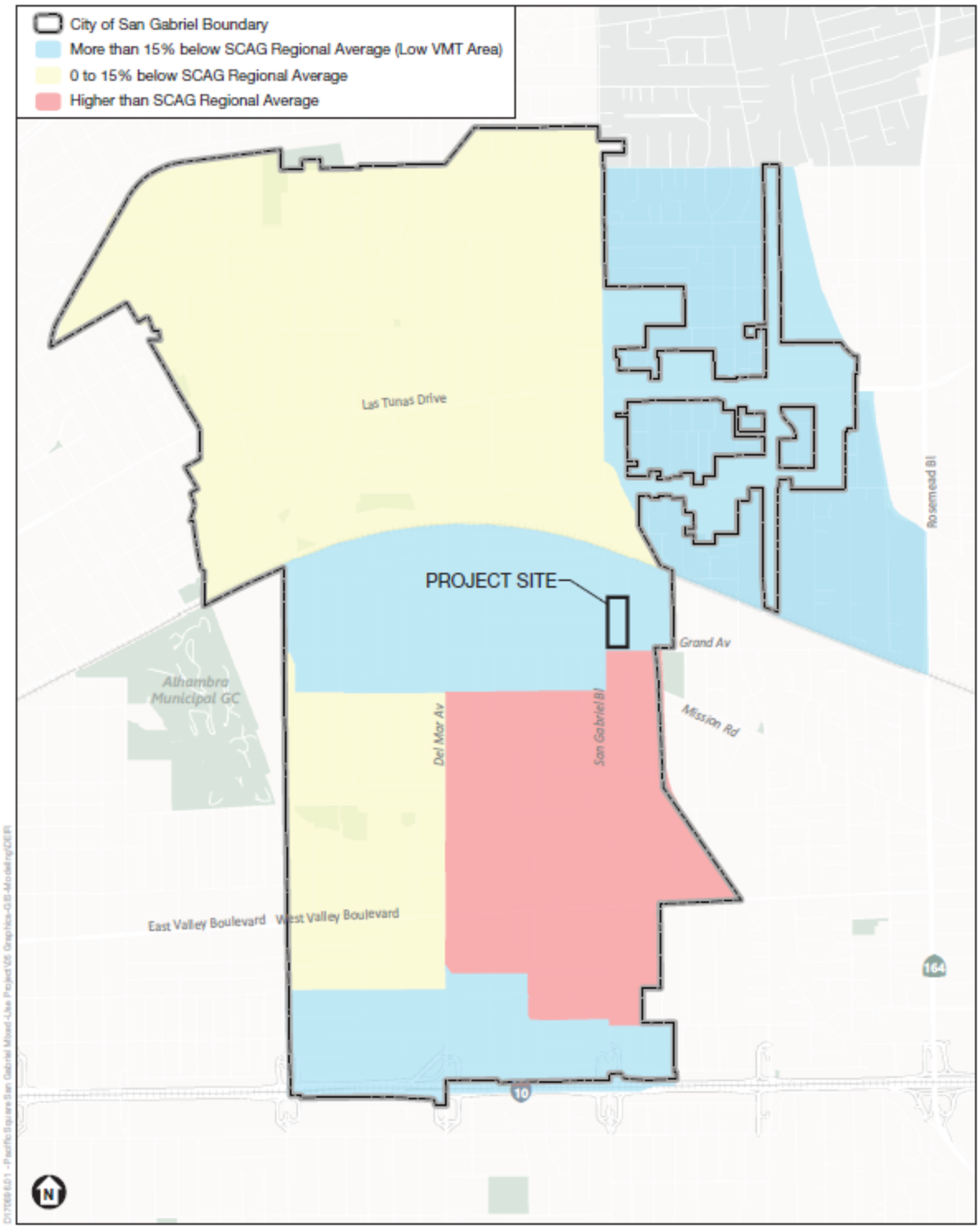
> *Because the proposed Project is of mixed-use nature, VMT would be measured using the VMT per service population metric, which combines residents and employees in its methodology. As shown in Figure 3.14-1, the proposed Project and its corresponding transportation analysis zone (TAZ) are located in a low VMT area… Therefore, the proposed project is exempt from further VMT analysis.* (DEIR, p. 3.14-10)

DEIR Figure 3.14-1 is reproduced on the next page. As shown in Figure 3.14-1, the project site is shown in a blue area labeled "more than 15% below the SCAG regional average" but immediately across Grand Avenue to the south is an area shown in red labeled "higher than the SCAG regional average." Based on my more than 30 years' experience as a travel demand modeling, this did not look right, and I suspected that this may not represent a real VMT difference, but instead just be an artifact of the modeling process.

I followed up on these concerns by accessing the San Gabriel Valley COG (SGVCOG) Vehicle Miles Traveled Evaluation Tool developed by and maintained by Fehr and Peers.[2] The tool displays the same data extracted from the SCAG regional travel demand model that are the basis for DEIR Figure 3.14-1.

[1] Milam, R. T. and J. Pack. Technical Memorandum re VMT Impact Analysis Mythologies and Case Studies. https://www.fehrandpeers.com/wp-content/uploads/2019/12/Methodologies-and-Calculations.pdf, February 26, 2019.

[2] https://apps.fehrandpeers.com/SGVCOGVMT/#



SOURCE: Fehr & Peers, 2020

Pacific Square San Gabriel Mixed-Use Project

Figure 3.14-1
City of San Gabriel Daily VMT per Service Population Map

ESA

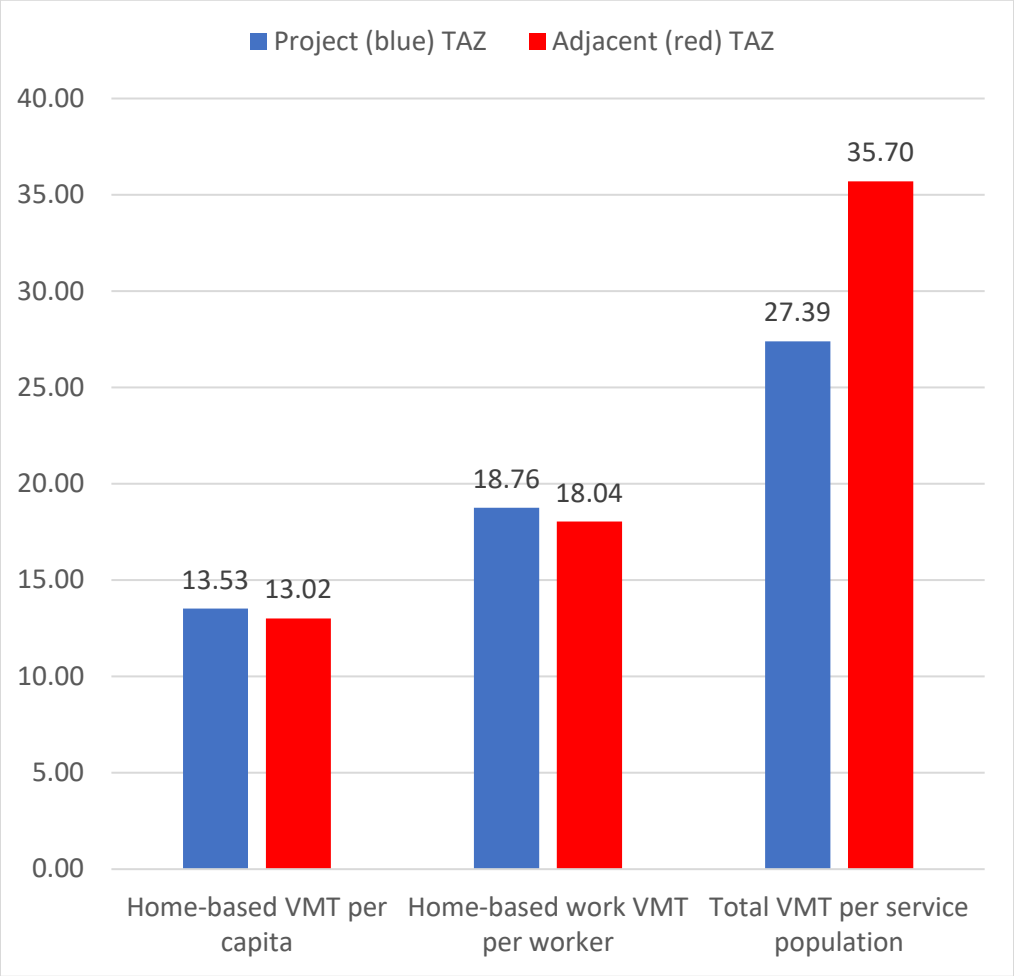
6-7

The SGVCOG tool gives three metrics for every Transportation Analysis Zone (TAZ) in the SGVCOG region:

- home-based VMT per capita (for residential land uses)
- home-based work VMT per worker (for non-residential uses)
- total VMT per service population (for all land uses)

The figure below shows these three VMT metrics for the project TAZ (blue) and for the TAZ across the street to the south (red).

VMT Metrics from the SGVCOG Tool



As shown in the figure, home-based VMT per capita is <u>higher</u> in the supposedly-low-VMT Project TAZ than in the adjacent supposedly-high-VMT TAZ. Similarly, home-based VMT per worker also is <u>higher</u> in the supposedly-low-VMT project TAZ than in the adjacent supposedly-high-VMT TAZ.

Nevertheless, the combination metric – total VMT per service population – is much lower for the Project TAZ than in the adjacent TAZ. This is wrong. There are two fundamental problems in the total VMT per service population calculations.

6-7

1) The calculated value is very sensitive to the balance between population and employment. As shown in the figure, the home-based VMT per capita is less than half the total VMT per service population. Therefore, more jobs relative to population will result in higher VMT per service population and this distorts the metric. Project VMT will not be affected directly by the mix of jobs and housing in the TAZ today; therefore, the total VMT per service population metric calculated from current conditions is invalid when applied to a new project.

2) In the SCAG model, different employment types produce different amounts of VMT per employee. The calculated total VMT per service population will vary based on the employment mix in each TAZ. Project VMT will not be affected directly by the mix of employment types in the TAZ today; therefore, the total VMT per service population metric calculated from current conditions is invalid when applied to a new project.

As the combined total VMT per service population is invalid, the DEIR should have followed OPR guidance and evaluated both residential VMT per capita and non-residential VMT per employee.

Project Fails Non-Residential VMT Screening Test

The Project TAZ fails the 15% reduction threshold for home-based work VMT per worker as shown in the figure below copied from the SGVCOG VMT Evaluation Tool. Therefore, the project is not located in a low-VMT area as is claimed in the DEIR.

6-7

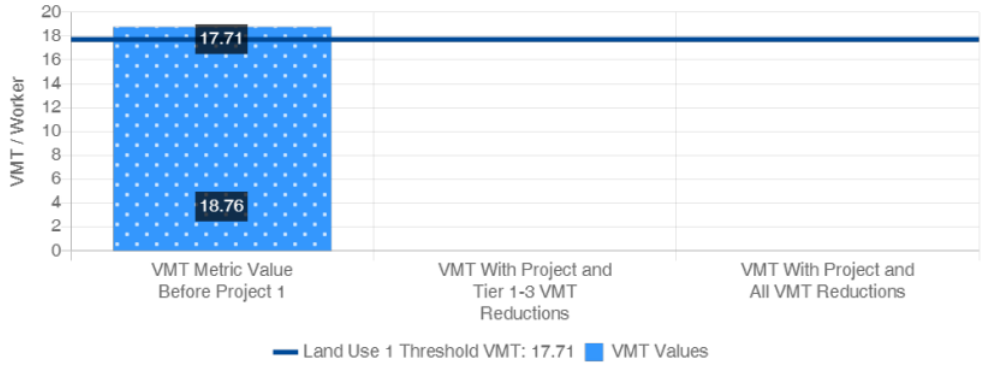
SGVCOG VMT Evaluation Tool Report

SGVCOG
Page 2

Office Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Office
VMT Without Project 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	SGVCOG Average
VMT Baseline Value 1:	20.84
VMT Threshold Description 1:	-15%
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	18.76	null	null
Low VMT Screening Analysis	No (Fail)	null	null



Project is Not in a Low Residential VMT Area

The SGVCOG tool indicates that the project TAZ satisfies the 15% threshold for residential VMT per capita, with a value of 16.5% less than the SGVCOG average. However, this finding is problematic. A more comprehensive model shows VMT per household in this TAZ as higher than the regional average.

The Housing + Transportation (H+T) Index[3] was developed by the Center for Neighborhood Technologies and calculated for the entire U.S. with funding by the U.S. Department of Housing and Urban Development the Department of Energy, the Environmental Protection Agency and many foundations. It has been extensively peer reviewed and vetted. The data are easy to download and there is no charge for usage. The neighborhood characteristics included in the H+T Index calculations include:

- gross density
- regional housing intensity
- fraction of single-family detached
- block density
- employment access index
- employment mix index
- transit connectivity index
- transit access shed
- transit access shed jobs
- average available transit trips per week

It has been extensively documented that regional travel demand models (including the SCAG model) are not sufficiently sensitive to the type of neighborhood characteristics embodied in the H+T VMT estimates; in fact, there are dozens of studies where these deficiencies have required post-processing to at least partially address the model's deficiencies – including many done by Fehr and Peers. Furthermore, regional travel demand models are inaccessible "black boxes" whereas the H+T Index is transparent.

6-7

The figure on the following page shows that VMT per household in the project Census Block Group is:

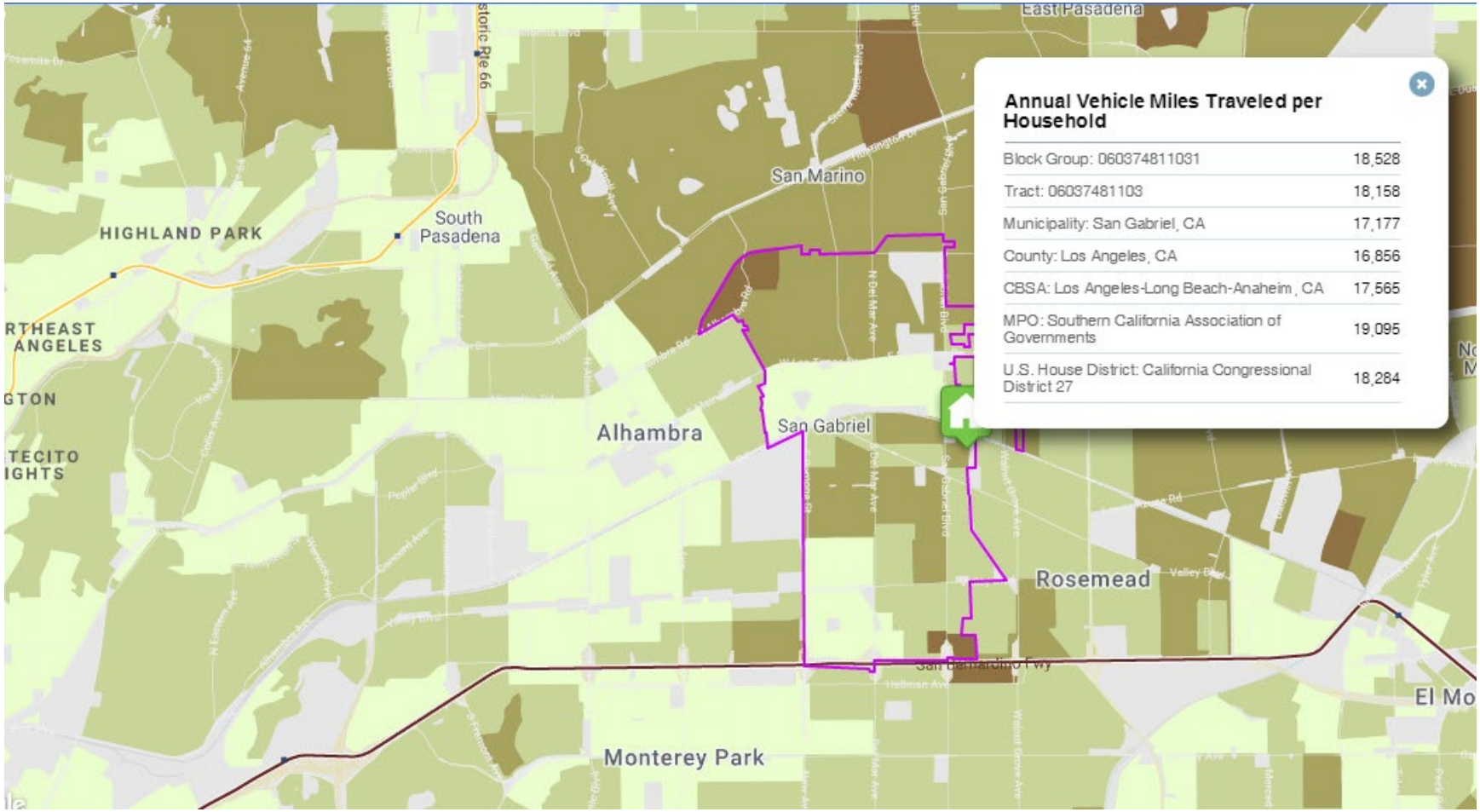
- 7.9% higher than the average for the City of San Gabriel
- 3.0% lower than the average for the SCAG region

Using the H+T Index, the project does not satisfy the 15% reduction threshold and is not located in a low residential VMT area.

The H+T values are normalized so that the values are all presented for an average size household with average income. It appears that the values in the SGVCOG are not similarly normalized, and this likely distorts the SGVCOG home-based VMT per capita metric. Data in the H+T model shows that the median household income in the project Block Group is 28% less than the SCAG average and the average household size is 16% higher than the SCAG average. Both differences push VMT per capita in the SCAG model down relative to an average household. These VMT reductions should not be applied to the proposed project which likely will be occupied by smaller households with higher incomes, on average, than the existing land use. Without these distortions it is likely that the project TAZ would have failed the residential screening test in the SGVCOG tool as well as when the H+T Index is applied.

[3] https://htaindex.cnt.org/

H+T Index: Average VMT per Household for the Project Block Group Compared to Regional Averages



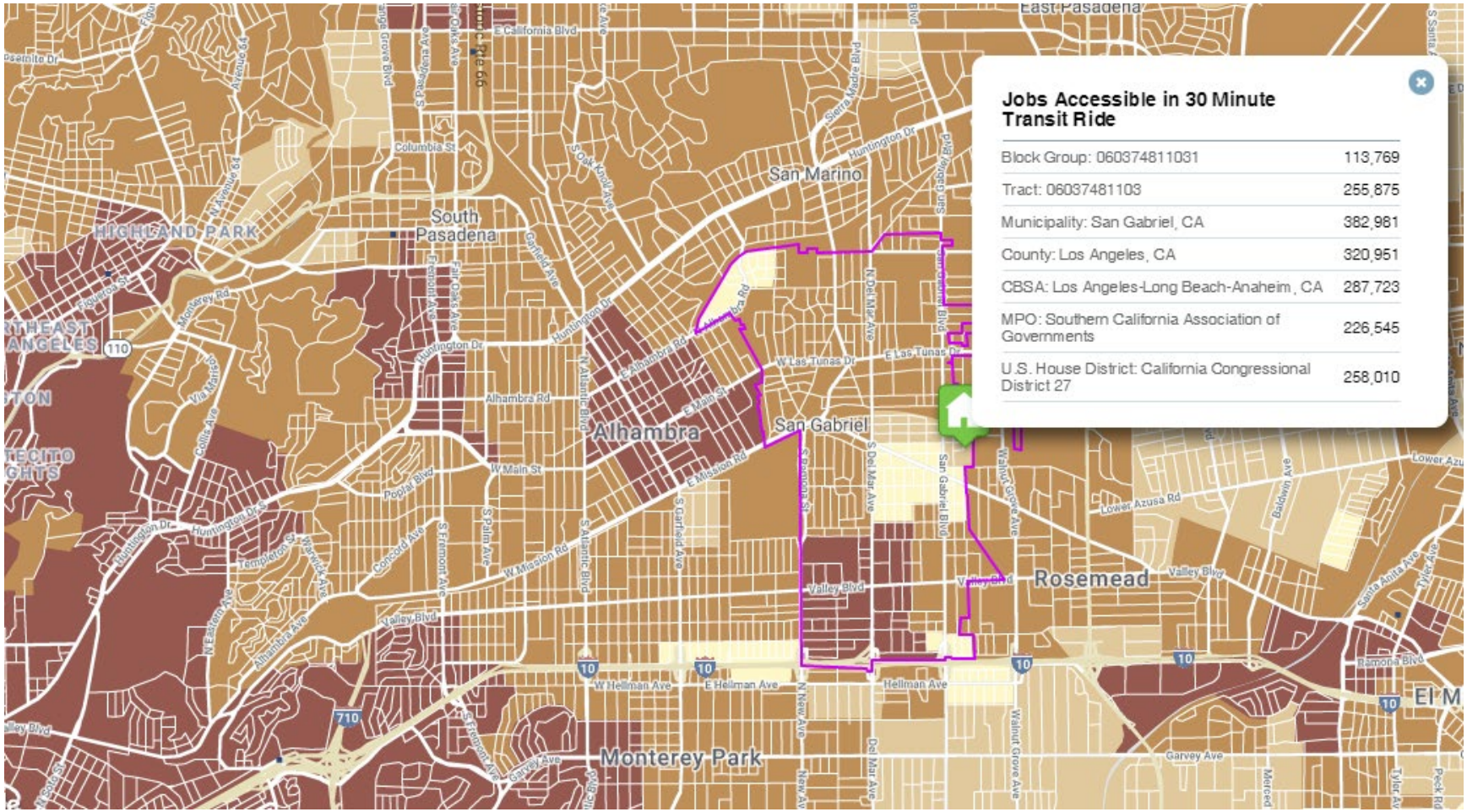
San Gabriel summary

	Population	% of Population
< 16,000	16,024	38.6%
16,000 - 18,500	11,026	26.5%
18,500 - 21,000	13,423	32.3%
21,000 - 26,000	1,070	2.6%
26,000 +	0	0%
Total	41,543	100%

6-7

Project is Not in an Area Well Served by Transit

The H+T Index includes other useful metrics including jobs accessible in a 30-minute transit ride. As shown in the figure, the project Census Block Group value of 113,769 is less than one third of the average for the City of San Gabriel (382,981) and about one half the average for the entire SCAG region (226,545). The DEIR suggests that the presence of one minor bus route in the neighborhood makes the project support "multi-modal transit opportunities." (DEIR, p. 2-6). It does not. The neighborhood is not even up to the regional average in transit access.



6-8

The DEIR Should Have Done a Valid VMT Estimate and Mitigated Significant Impacts as Necessary

The DEIR (p. 3-14-5) states:

> *On July 7, 2020, the City, as a member of the San Gabriel Valley Council of Governments (SGVCOG), adopted the following VMT thresholds and guidelines, which are based on OPR guidance. The City's adopted VMT thresholds state that proposed land uses must achieve a 15 percent reduction in VMT per capita, VMT per worker, or VMT per service population as compared to the existing Baseline VMT, defined as the existing SGVCOG regional average. A significant VMT impact would occur if ta project generates VMT (per capita, per employee, or per service population) higher than 15 below the Baseline VMT. Projects that result in a significant MVT impact would be required to provide mitigations such as modifications to the land use mix to reduce VMT, implementing transportation demand management (TDM) measures to reduce VMT and/or participation in a VMT fee program, mitigation exchange, or banking program (if available).*

The project area does not satisfy the 15 percent reduction thresholds. Therefore, a complete VMT analysis should have been done, along with any necessary mitigation. 6-9

Sincerely,

Norman L. Marshall

Norman L. Marshall

Resume

NORMAN L. MARSHALL, PRESIDENT

nmarshall@smartmobility.com

EDUCATION:

Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1982
Bachelor of Science in Mathematics, Worcester Polytechnic Institute, Worcester, MA, 1977

PROFESSIONAL EXPERIENCE: (32 Years, 18 at Smart Mobility, Inc.)

Norm Marshall helped found Smart Mobility, Inc. in 2001. Prior to this, he was at RSG for 14 years where he developed a national practice in travel demand modeling. He specializes in analyzing the relationships between the built environment and travel behavior and doing planning that coordinates multi-modal transportation with land use and community needs.

Regional Land Use/Transportation Scenario Planning

Portland Area Comprehensive Transportation System (PACTS) – the Portland Maine Metropolitan Planning Organization. Updating regional travel demand model with new data (including AirSage), adding a truck model, and multiclass assignment including differentiation between cash toll and transponder payments.

Loudoun County Virginia Dynamic Traffic Assignment – Enhanced subarea travel demand model to include Dynamic Traffic Assignment (Cube). Model being used to better understand impacts of roadway expansion on induced travel.

Vermont Agency of Transportation-Enhanced statewide travel demand model to evaluate travel impacts of closures and delays resulting from severe storm events. Model uses innovate Monte Carlo simulations process to account for combinations of failures.

California Air Resources Board – Led team including the University of California in $250k project that reviewed the ability of the new generation of regional activity-based models and land use models to accurately account for greenhouse gas emissions from alternative scenarios including more compact walkable land use and roadway pricing. This work included hands-on testing of the most complex travel demand models in use in the U.S. today.

Climate Plan (California statewide) – Assisted large coalition of groups in reviewing and participating in the target setting process required by Senate Bill 375 and administered by the California Air Resources Board to reduce future greenhouse gas emissions through land use measures and other regional initiatives.

Chittenden County (2060 Land use and Transportation Vision Burlington Vermont region) – led extensive public visioning project as part of MPO's long-range transportation plan update.

Flagstaff Metropolitan Planning Organization – Implemented walk, transit and bike models within regional travel demand model. The bike model includes skimming bike networks including on-road and off-road bicycle facilities with a bike level of service established for each segment.

Chicago Metropolis Plan and Chicago Metropolis Freight Plan (6-county region)— developed alternative transportation scenarios, made enhancements in the regional travel demand model, and used the enhanced

model to evaluate alternative scenarios including development of alternative regional transit concepts. Developed multi-class assignment model and used it to analyze freight alternatives including congestion pricing and other peak shifting strategies.

Municipal Planning

City of Grand Rapids – Michigan Street Corridor – developed peak period subarea model including non-motorized trips based on urban form. Model is being used to develop traffic volumes for several alternatives that are being additional analyzed using the City's Synchro model

City of Omaha - Modified regional travel demand model to properly account for non-motorized trips, transit trips and shorter auto trips that would result from more compact mixed-use development. Scenarios with different roadway, transit, and land use alternatives were modeled.

City of Dublin (Columbus region) – Modified regional travel demand model to properly account for non-motorized trips and shorter auto trips that would result from more compact mixed-use development. The model was applied in analyses for a new downtown to be constructed in the Bridge Street corridor on both sides of an historic village center.

6-10

City of Portland, Maine – Implemented model improvements that better account for non-motorized trips and interactions between land use and transportation and applied the enhanced model to two subarea studies.

City of Honolulu – Kaka'ako Transit Oriented Development (TOD) – applied regional travel demand model in estimating impacts of proposed TOD including estimating internal trip capture.

City of Burlington (Vermont) Transportation Plan – Led team that developing Transportation Plan focused on supporting increased population and employment without increases in traffic by focusing investments and policies on transit, walking, biking and Transportation Demand Management.

Transit Planning

Regional Transportation Authority (Chicago) and Chicago Metropolis 2020 – evaluated alternative 2020 and 2030 system-wide transit scenarios including deterioration and enhance/expand under alternative land use and energy pricing assumptions in support of initiatives for increased public funding.

Capital Metropolitan Transportation Authority (Austin, TX) Transit Vision – analyzed the regional effects of implementing the transit vision in concert with an aggressive transit-oriented development plan developed by Calthorpe Associates. Transit vision includes commuter rail and BRT.

Bus Rapid Transit for Northern Virginia HOT Lanes (Breakthrough Technologies, Inc and Environmental Defense.) – analyzed alternative Bus Rapid Transit (BRT) strategies for proposed privately-developing High Occupancy Toll lanes on I-95 and I-495 (Capital Beltway) including different service alternatives (point-to-point services, trunk lines intersecting connecting routes at in-line stations, and hybrid).

Roadway Corridor Planning

I-30 Little Rock Arkansas – Developed enhanced version of regional travel demand model that integrates TransCAD with open source Dynamic Traffic Assignment (DTA) software, and used to model I-30 alternatives. Freeway bottlenecks are modeled much more accurately than in the base TransCAD model.

South Evacuation Lifeline (SELL) – In work for the South Carolina Coastal Conservation League, used Dynamic Travel Assignment (DTA) to estimate evaluation times with different transportation alternatives in coastal South Caroline including a new proposed freeway.

Hudson River Crossing Study (Capital District Transportation Committee and NYSDOT) – Analyzing long term capacity needs for Hudson River bridges which a special focus on the I-90 Patroon Island Bridge where a microsimulation VISSIM model was developed and applied.

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DTA Love: Co-leader of workshop on Dynamic Traffic Assignment at the June 2019 Transportation Research Board Planning Applications Conference.

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MEMBERSHIPS/AFFILIATIONS

Associate Member, Transportation Research Board (TRB)

Member and Co-Leader Project for Transportation Modeling Reform, Congress for the New Urbanism (CNU)

6-10

EXHIBIT B

Resume

NORMAN L. MARSHALL, PRESIDENT

nmarshall@smartmobility.com

EDUCATION:

Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1982
Bachelor of Science in Mathematics, Worcester Polytechnic Institute, Worcester, MA, 1977

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Member and Co-Leader Project for Transportation Modeling Reform, Congress for the New Urbanism (CNU)

Appendix B

Technical Documentation for the Final EIR

ESA

Appendix B-1

2018 SCE Quantitative Information

ESG/Sustainability Template – Section 2: Quantitative Information

Disclaimer: All information below is being provided on a voluntarily basis, and as such, companies may elect to include or exclude any of the topics outlined below and customize the template to their specific needs. The decision to include data for historical and future years is at the discretion of each company and the specific years (e.g., historical baseline) should be chosen as appropriate for each company.

Parent Company: *Edison International*
Operating Company(s): *Southern California Edison, Edison Energy*
Business Type(s): *Vertically integrated*
State(s) of Operation: *California (Southern California Edison)*
State(s) with RPS Programs: *California*
Regulatory Environment: *Regulated*
Report Date: *9/27/2018*
Notes: *This tab shows Southern California Edison-specific data only, except as noted.*

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline 2005	Last Year 2016	Current Year 2017	Comments, Links, Additional Information, and Notes
	Portfolio				
1	**Owned Nameplate Generation Capacity at end of year (MW)**	**5,434**	**3,176**	**3,198**	**2016 and 2017 Source: 10-K filing** and **Financial & Statistical Report** for each data year shown **2005 Source: Financial & Statistical Report** **Notes for data years 2016 and 2017:** - The "Hydroelectric" (2016 and 2017) and "Natural Gas" (2017 only) categories are slightly different than reported in the 10-K and Financial & Statistical report, as they account for updates to the ratings of several facilities. - The capacity listed for "Solar" is the AC rating of the solar panels (converts to 91 MW DC rating, which is shown in the 10-K and Financial & Statistical Report) - "Other" includes energy storage. - 2 MW of fuel cell capacity are included in the "natural gas" category. - An additional 21 MW of energy storage capacity to support peaker and diesel-powered plants is not reflected.
1.1	Coal	1,573	0	0	
1.2	Natural Gas	484	1,297	1,319	
1.3	Nuclear	2,215	591	591	
1.4	Petroleum	9	11	11	
1.5	Total Renewable Energy Resources	1,153	1,245	1,245	
1.5.1	Biomass/Biogas	0	0	0	
1.5.2	Geothermal	0	0	0	
1.5.3	Hydroelectric	1,153	1,177	1,177	
1.5.4	Solar	0	68	68	
1.5.5	Wind	0	0	0	
1.6	Other	0	32	32	
	Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the alternative generation reporting options				
	Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the alternative generation reporting options				
2.i	**Owned Net Generation for the data year (MWh)**	**34,570,000**	**14,003,000**	**15,255,000**	**Source: Financial and Statstical Reports** for each data year shown. **Notes:** - Converted millions of kWh to MWh by multiplying by 1000 - 8,000 MWh and 10,000 MWh of fuel cell generation are included in the "natural gas" category for 2016 and 2017, respectively.
2.1.i	Coal	11,237,000	0	0	
2.2.i	Natural Gas	327,000	5,061,000	4,211,000	
2.3.i	Nuclear	17,886,000	5,094,000	5,110,000	
2.4.i	Petroleum	31,000	29,000	29,000	
2.5.i	Total Renewable Energy Resources	**5,089,000**	**3,819,000**	**5,905,000**	
2.5.1.i	Biomass/Biogas	0	0	0	
2.5.2.i	Geothermal	0	0	0	
2.5.3.i	Hydroelectric	5,089,000	3,712,000	5,806,000	
2.5.4.i	Solar	0	107,000	99,000	
2.5.5.i	Wind	0	0	0	
2.6.i	Other	0	0	0	

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ESG/Sustainability Template – Section 2: Quantitative Information

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Parent Company: *Edison International*
Operating Company(s): *Southern California Edison, Edison Energy*
Business Type(s): *Vertically integrated*
State(s) of Operation: *California (Southern California Edison)*
State(s) with RPS Programs: *California*
Regulatory Environment: *Regulated*
Report Date: *9/27/2018*
Notes: *This tab shows Southern California Edison-specific data only, except as noted.*

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline 2005	Last Year 2016	Current Year 2017	Comments, Links, Additional Information, and Notes
2.ii	**Purchased Net Generation for the data year (MWh)**	**44,202,000**	**65,365,000**	**63,098,000**	**Source: Financial and Statstical Reports** for each data year shown **Notes:** - Converted millions of kWh to MWh by multiplying by 1000 - 8,000 MWh and 10,000 MWh of fuel cell generation are included in the "natural gas" category for 2016 and 2017, respectively. - 2005 data is estimated using the following assumptions from the 2005 Financial and Statistical Report: (1) Natural Gas includes "Firm" and "Cogeneration" line items; (2) Other includes "Economy/Other" and "CDWR/ISO" line items.
2.1.ii	Coal	0	0	0	
2.2.ii	Natural Gas	25,762,000	10,853,000	12,528,000	
2.3.ii	Nuclear	0	0	0	
2.4.ii	Petroleum	0	0	0	
2.5.ii	Total Renewable Energy Resources	**12,385,000**	**21,126,000**	**22,719,000**	
2.5.1.ii	Biomass/Biogas	1,371,000	549,000	478,000	
2.5.2.ii	Geothermal	7,855,000	5,781,000	5,749,000	
2.5.3.ii	Hydroelectric	320,000	60,000	196,000	
2.5.4.ii	Solar	610,000	7,114,000	9,105,000	
2.5.5.ii	Wind	2,229,000	7,622,000	7,191,000	
2.6.ii	Other	6,055,000	33,386,000	27,851,000	
3	**Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters**				
3.1	Total Annual Capital Expenditures (nominal dollars)	$ 1,808,000,000	$ 3,633,000,000	$ 3,740,000,000	**Source: 10-K filings**; Notes: SCE-specific, does not include accruals
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	N/A	732,110	694,678	**Source: EIA Form 861**; Notes: - Savings totals include savings associated with Energy Savings Assistance (low income) and do not include savings associated with Codes & Standards, which implements programs required by code. EIA Form 861 does not consider Codes & Standards a company administered program. - EE Program data is not available for 2005.
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	N/A	$ 326,666,997	$ 325,656,643	
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	0.00%	99.11%	99.15%	**Source: EIA Form 861** (aligned, but using active meter data only); **Notes:** Percentage derived from active meters only (total smart meters with active service accounts at year end/total meters with active service accounts at year end); EIA Form 861 data includes all meters.
4	**Retail Electric Customer Count (at end of year)**	**4,674,179**	**5,020,875**	**4,971,013**	
4.1	Commercial	537,795	587,658	578,777	
4.2	Industrial	37,825	31,436	30,086	**Source: EIA Form 861; Notes:** Figures represent bundled customers.
4.3	Residential	4,098,559	4,401,781	4,362,150	

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ESG/Sustainability Template – Section 2: Quantitative Information

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State(s) of Operation:	*California (Southern California Edison)*
State(s) with RPS Programs:	*California*
Regulatory Environment:	*Regulated*
Report Date:	*9/27/2018*
Notes:	*This tab shows Southern California Edison-specific data only, except as noted.*

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline 2005	Last Year 2016	Current Year 2017	Comments, Links, Additional Information, and Notes
	Emissions				
5	**GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)**				**Source for Owned Generation: EPA GHG Reporting Protocol** **Source for Purchased Power: Third Party Purchases (Specified Emissions) + Unspecified Emissions (Using California Air Resources Board (CARB) Emission Factor) using generation data reported to California Energy Commission** **Source for Non-Generation CO2e Emissions: EPA GHG Reporting Protocols**
	Note: The alternatives available below are intended to provide flexibility in reporting GHG emissions, and should be used to the extent appropriate for each company.				
5.1	**Owned Generation (1) (2) (3)**				
5.1.1	Carbon Dioxide (CO2)				
5.1.1.1	Total Owned Generation CO2 Emissions (MT)	10,205,779	1,940,398	1,627,424	
5.1.1.2	Total Owned Generation CO2 Emissions Intensity (MT/Net MWh)	0.295	0.139	0.107	
5.1.2	Carbon Dioxide Equivalent (CO2e)				
5.1.2.1	Total Owned Generation CO2e Emissions (MT)	10,324,516	1,942,370	1,629,079	
5.1.2.2	Total Owned Generation CO2e Emissions Intensity (MT/Net MWh)	0.299	0.139	0.107	
5.2	**Purchased Power (4)**				
5.2.1	Carbon Dioxide (CO2)				
5.2.1.1	Total Purchased Generation CO2 Emissions (MT)	18,549,781	18,556,308	16,200,226	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.420	0.284	0.257	
5.2.2	Carbon Dioxide Equivalent (CO2e)				
5.2.2.1	Total Purchased Generation CO2e Emissions (MT)	18,599,573	18,574,496	16,552,810	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.421	0.284	0.262	
5.3	**Owned Generation + Purchased Power**				
5.3.1	Carbon Dioxide (CO2)				
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions (MT)	28,755,560	20,496,706	17,827,650	
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.365	0.258	0.228	
5.3.2	Carbon Dioxide Equivalent (CO2e)				
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions (MT)	28,924,089	20,516,866	18,181,889	
5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.367	0.259	0.232	
5.4	**Non-Generation CO2e Emissions**				
5.4.1	Fugitive CO2e emissions of sulfur hexafluoride (MT) (5)	460,308	282,980	61,297	
5.4.2	Fugitive CO2e emissions from natural gas distribution (MT) (6)	Does not apply	Does not apply	Does not apply	

Notes for Owned Generation:
- Emissions shown are for SCE's share of generation from facilities in which SCE had an ownership interest and that were subject to reporting under the EPA GHG Reporting Protocols. Some SCE facilities are not subject to reporting under the EPA GHG Reporting Protocols and are excluded from this calculation (e.g. facilities with emissions below the reporting threshold).
- Emissions intensity is estimated by dividing emissions by total owned generation reported in Section 2.i above.

Notes for Purchased Power:
- Generation source data is purchased power data reported to the California Energy Commission.
- The CARB emissions factor is in terms of CO2e, so estimated CO2 factor based on CO2/CO2e ratio for third party purchases.
- Emissions intensity is estimated by dividing emissions by total purchased generation reported in Section 2.ii above.

Notes for Owned Generation + Purchased Power:
- Emissions are the sum of emissions in sections 5.1 and 5.2.
- Emissions intensity is estimated by dividing emissions by the sum of the total owned and purchased net generation shown in Sections 2.i and 2.ii above.

Notes for Non-Generation CO2e Emissions:
- SCE does not distribute natural gas; CO2e emissions from natural gas distribution do not apply.

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ESG/Sustainability Template – Section 2: Quantitative Information

Disclaimer: All information below is being provided on a voluntarily basis, and as such, companies may elect to include or exclude any of the topics outlined below and customize the template to their specific needs. The decision to include data for historical and future years is at the discretion of each company and the specific years (e.g., historical baseline) should be chosen as appropriate for each company.

Parent Company: *Edison International*
Operating Company(s): *Southern California Edison, Edison Energy*
Business Type(s): *Vertically integrated*
State(s) of Operation: *California (Southern California Edison)*
State(s) with RPS Programs: *California*
Regulatory Environment: *Regulated*
Report Date: *9/27/2018*
Notes: *This tab shows Southern California Edison-specific data only, except as noted.*

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline 2005	Last Year 2016	Current Year 2017	Comments, Links, Additional Information, and Notes
6	**Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)**				
6.1	Generation basis for calculation (7)	Total			**Source: EPA Acid Rain Program**
6.2	**Nitrogen Oxide (NOx)**				**Notes:**
6.2.1	Total NOx Emissions (MT)	21,447	94	85	- Emissions shown are for SCE's share of generation from facilities in which SCE had an ownership interest and that are subject to reporting under the EPA Acid Rain Program. Some SCE facilities are not subject to reporting under the EPA Acid Rain program and are excluded from this calculation (e.g. facilities with emissions below the reporting threshold).
6.2.2	Total NOx Emissions Intensity (MT/Net MWh)	0.000620	0.000007	0.000006	- Emission intensity found by dividing emissions by utility-owned net generation as shown in Section 2.i.
6.3	**Sulfur Dioxide (SO2)**				- SCE did not have an ownership interest in any coal facilities in 2016 or 2017 (i.e. mercury emissions were zero).
6.3.1	Total SO2 Emissions (MT)	26,643	10	9	
6.3.2	Total SO2 Emissions Intensity (MT/Net MWh)	0.000771	0.000001	0.000001	
6.4	**Mercury (Hg)**				
6.4.1	Total Hg Emissions (kg)	327	0.0	0.0	
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	0.000009	0.000000	0.000000	

Use the data organizer on the left (i.e., the plus/minus symbol) to open/close the Emissions section notes

Resources

7	**Human Resources**				
7.1	Total Number of Employees	14,041	11,947	12,234	**Source: 10-K filings; Notes: SCE only**
7.2	Total Number on Board of Directors/Trustees	10	11	11	**Source: 10-K filings; Notes:** Edison International Board statistics as of December 31st in the year listed.
7.3	Total Women on Board of Directors/Trustees	1	3	3	
7.4	Total Minorities on Board of Directors/Trustees	3	5	5	
7.5	Employee Safety Metrics				
7.5.1	Recordable Incident Rate	5.80	1.94	2.08	**Source: Internal records; Notes:** Metrics are for SCE employees only (not contractors)
7.5.2	Lost-time Case Rate	2.52	0.58	0.78	
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	3.39	0.80	0.99	
7.5.4	Work-related Fatalities	0	2	0.00	

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ESG/Sustainability Template – Section 2: Quantitative Information

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Parent Company: *Edison International*
Operating Company(s): *Southern California Edison, Edison Energy*
Business Type(s): *Vertically integrated*
State(s) of Operation: *California (Southern California Edison)*
State(s) with RPS Programs: *California*
Regulatory Environment: *Regulated*
Report Date: *9/27/2018*
Notes: *This tab shows Southern California Edison-specific data only, except as noted.*

Ref. No.	Refer to the 'Definitions' tab for more information on each metric	Baseline 2005	Last Year 2016	Current Year 2017	Comments, Links, Additional Information, and Notes
8	**Fresh Water Resources**				
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	N/A	0.000000190	0.000000158	**Source: Internal records; Notes:** - Sum of freshwater withdrawals from SCE-owned generation facilities divided by total owned generation as shown in Section 2.i above. Water withdrawal data is not available for 2005.
8.2	Water Withdrawals - Non-Consumptive (Billions of Liters/Net MWh)	N/A	0.00	0.00	
9	**Waste Products**				
9.1	Amount of Hazardous Waste Manifested for Disposal (Tons)	N/A	16,939	9,035	**Source: Internal records; Notes:** - Hazardous waste data shows tons of hazardous waste manifested for disposal at a Treatment Storage and Disposal (TSD) facility (not recycled). Hazardous waste data for 2005 is not available. - 2005 data shown is for coal combustion products beneficially used is for coal facilities in which SCE had a majority share (i.e. Mohave Power Station). - SCE did not have an ownership interest in any coal facilities in 2016 or 2017.
9.2	Percent of Coal Combustion Products Beneficially Used	58%	0%	0%	

Additional Metrics (Optional)

Insert additional rows in this section as necessary.

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Definitions for the EEI ESG/Sustainability Template - Version 1

Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
	Portfolio				
1	**Owned Nameplate Generation Capacity at end of year (MW)**	**Provide generation capacity data that is consistent with other external reporting by your company**. The alternative default is to use the summation of the nameplate capacity of installed owned generation in the company portfolio, as reported to the U.S. Energy Information Administration (EIA) on **Form 860 Generator Information**. Note that data should be provided in terms of equity ownership for shared facilities. Nameplate capacity is defined as the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.	Megawatt (MW): One million watts of electricity.	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/. Form 860 instructions available at: www.eia.gov/survey/form/eia_860/instructions.pdf.
1.1	Coal	Nameplate capacity of generation resources that produce electricity through the combustion of coal (a readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time).	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.2	Natural Gas	Nameplate capacity of generation resources that produce electricity through the combustion of natural gas (a gaseous mixture of hydrocarbon compounds, the primary one being methane).	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.3	Nuclear	Nameplate capacity of generation resources that produce electricity through the use of thermal energy released from the fission of nuclear fuel in a reactor.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.4	Petroleum	Nameplate capacity of generation resources that produce electricity through the combustion of petroleum (a broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids).	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5	Total Renewable Energy Resources	Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5.1	Biomass/Biogas	Nameplate capacity of generation resources that produce electricity through the combustion of biomass (an organic nonfossil material of biological origin constituting a renewable energy source).	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5.2	Geothermal	Nameplate capacity of generation resources that produce electricity through the use of thermal energy released from hot water or steam extracted from geothermal reservoirs in the earth's crust.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5.3	Hydroelectric	Nameplate capacity of generation resources that produce electricity through the use of flowing water.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5.4	Solar	Nameplate capacity of generation resources that produce electricity through the use of the radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.5.5	Wind	Nameplate capacity of generation resources that produce electricity through the use of kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.	MW	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
1.6	Other	Nameplate capacity of generation resources that are not defined above.	MW	End of Year	
2	**Net Generation for the data year (MWh)**	Net generation is defined as the summation of the amount of gross generation less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Data can be provided in terms of total, owned, and/or purchased, depending on how the company prefers to disseminate data in this template. **Provide net generation data that is consistent with other external reporting by your company**. The alternative default is to provide owned generation data as reported to EIA on **Form 923 Schedule 3** and align purchased power data with the Federal Energy Regulatory Commission (FERC) **Form 1 Purchased Power Schedule**, Reference Pages numbers 326-327. Note: Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.	Megawatthour (MWh): One thousand kilowatt-hours or one million watt-hours.	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/. Form 923 instructions available at: www.eia.gov/survey/form/eia_923/instructions.pdf.
2.1	Coal	Net electricity generated by the combustion of coal (a readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time).	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.2	Natural Gas	Net electricity generated by the combustion of natural gas (a gaseous mixture of hydrocarbon compounds, the primary one being methane).	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.3	Nuclear	Net electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.4	Petroleum	Net electricity generated by the combustion of petroleum (a broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids).	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.5	Total Renewable Energy Resources	Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.5.1	Biomass/Biogas	Net electricity generated by the combustion of biomass (an organic nonfossil material of biological origin constituting a renewable energy source).	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.5.2	Geothermal	Net electricity generated by the use of thermal energy released from hot water or steam extracted from geothermal reservoirs in the earth's crust.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.5.3	Hydroelectric	Net electricity generated by the use of flowing water.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.5.4	Solar	Net electricity generated by the use of the radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.

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Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
2.5.5	Wind	Net electricity generated by the use of kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.	MWh	Annual	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
2.6	Other	Net electricity generated by other resources that are not defined above. If applicable, this metric should also include market purchases where the generation resource is unknown.	MWh	Annual	
3	**Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters**				
3.1	Total Annual Capital Expenditures	Align annual capital expenditures with data reported in recent investor presentations. A capital expenditure is the use of funds or assumption of a liability in order to obtain physical assets that are to be used for productive purposes for at least one year. This type of expenditure is made in order to expand the productive or competitive posture of a business.	Nominal Dollars	Annual	Accounting Tools, *Q&A,* http://www.accountingtools.com/questions-and-answers/what-is-a-capital-expenditure.html
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	Incremental Annual Electricity Savings for the reporting year as reported to EIA on **Form 861**. Incremental Annual Savings for the reporting year are those changes in energy use caused in the current reporting year by: (1) new participants in DSM programs that operated in the previous reporting year, and (2) participants in new DSM programs that operated for the first time in the current reporting year. A "New program" is a program for which the reporting year is the first year the program achieved savings, regardless of when program development and expenditures began.	MWh	End of Year	U.S. Energy Information Administration, *Form EIA-861 Annual Electric Power Industry Report Instructions.* Available at: www.eia.gov/survey/form/eia_861/instructions.pdf.
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	Total annual investment in electric energy efficiency programs as reported to EIA on **Form 861**.	Nominal Dollars	End of Year	U.S. Energy Information Administration, *Form EIA-861 Annual Electric Power Industry Report Instructions.* Available at: www.eia.gov/survey/form/eia_861/instructions.pdf.
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	Number of electric smart meters installed at end-use customer locations, divided by number of total electric meters installed at end-use customer locations. Smart meters are defined as electricity meters that measure and record usage data at a minimum, in hourly intervals, and provide usage data to both consumers and energy companies at least once daily. Align reporting with EIA **Form 861** meter data, which lists all types of meter technology used in the system as well as total meters in the system.	Percent	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
4	**Retail Electric Customer Count (at end of year)**	Electric customer counts should be aligned with the data provided to EIA on **Form 861 - Sales to Utility Customers**.			U.S. Energy Information Administration, *Form EIA-861 Annual Electric Power Industry Report Instructions.* Available at: www.eia.gov/survey/form/eia_861/instructions.pdf.
4.1	Commercial	An energy-consuming sector that consists of service-providing facilities and equipment of businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
4.2	Industrial	An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity manufacturing (NAICS codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities. Various EIA programs differ in sectoral coverage.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
4.3	Residential	An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters. Note: Various EIA programs differ in sectoral coverage.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, *Online Glossary,* https://www.eia.gov/tools/glossary/.
	Emissions				
5	**GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)**				
5.1	**Owned Generation**				
5.1.1	**Carbon Dioxide (CO2)**				
5.1.1.1	Total Owned Generation CO2 Emissions	Total direct CO2 emissions from company equity-owned fossil fuel combustion generation in accordance with EPA's **GHG Reporting Program** (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production), using a continuous emission monitoring system (CEMS) or other approved methodology.	Metric Tons	Annual	U.S. Environmental Protection Agency, *Greenhouse Gas Reporting Program* (40 CFR, part 98, Subparts C and D).
5.1.1.2	Total Owned Generation CO2 Emissions Intensity	Total direct CO2 emissions from 5.1.1.1, divided by total MWh of owned net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.1.2	**Carbon Dioxide Equivalent (CO2e)**				
5.1.2.1	Total Owned Generation CO2e Emissions	Total direct CO2e emissions (CO2, CH4, and N2O) from company equity-owned fossil fuel combustion generation in accordance with EPA's **GHG Reporting Program** (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production), using a continuous emission monitoring system (CEMS) or other approved methodology.	Metric Tons	Annual	U.S. Environmental Protection Agency, *Greenhouse Gas Reporting Program* (40 CFR, part 98, Subparts C and D).
5.1.2.2	Total Owned Generation CO2e Emissions Intensity	Total direct CO2e emissions from 5.1.2.1, divided by total MWh of **owned** net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.2	**Purchased Power**				
5.2.1	Carbon Dioxide (CO2)				

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Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
5.2.1.1	Total Purchased Generation CO2 Emissions	Purchased power CO2 emissions should be calculated using the most relevant and accurate of the following methods: (1) For direct purchases, such as PPAs, use the direct emissions data as reported to EPA. (2) For market purchases where emissions attributes are unknown, use applicable regional or national emissions rate: - ISO/RTO-level emission factors - Climate Registry emission factors - E-Grid emission factors	Metric Tons	Annual	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity	Total purchased power CO2 emissions from 5.2.1.1, divided by total MWh of **purchased** net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.2.2	Carbon Dioxide Equivalent (CO2e)				
5.2.2.1	Total Purchased Generation CO2e Emissions	Purchased power CO2e emissions should be calculated using the most relevant and accurate of the following methods: (1) For direct purchases, such as PPAs, use the direct emissions data as reported to EPA. (2) For market purchases where emissions attributes are unknown, use applicable regional or national emissions rate: - ISO/RTO-level emission factors - Climate Registry emission factors - E-Grid emission factors	Metric Tons	Annual	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity	Total purchased power CO2e emissions from 5.2.2.1, divided by total MWh of **purchased** net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.3	**Owned Generation + Purchased Power**				
5.3.1	Carbon Dioxide (CO2)				
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions	Sum of total CO2 emissions reported under 5.1.1.1 and 5.2.1.1.	Metric Tons	Annual	
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity	Total emissions from 5.3.1.1, divided by total MWh of **owned and purchased** net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.3.2	Carbon Dioxide Equivalent (CO2e)				
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions	Sum of total CO2e emissions reported under 5.1.2.1 and 5.2.2.1.	Metric Tons	Annual	
5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity	Total emissions from 5.3.2.1, divided by total MWh of **owned and purchased** net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.4	**Non-Generation CO2e Emissions**				
5.4.1	Fugitive CO2e emissions of sulfur hexafluoride	Total fugitive CO2e emissions of sulfur hexafluoride in accordance with EPA's **GHG Reporting Program** (40 CFR Part 98, Subpart DD).	Metric Tons	Annual	U.S. Environmental Protection Agency, *Greenhouse Gas Reporting Program* (40 CFR, part 98, Subpart DD).
5.4.2	Fugitive CO2e emissions from natural gas distribution	Total fugitive CO2e emissions from natural gas distribution in accordance with EPA's **GHG Reporting Program** (40 CFR Part 98, Subpart W)	Metric Tons	Annual	U.S. Environmental Protection Agency, *Greenhouse Gas Reporting Program* (40 CFR, part 98, Subpart W).
6	**Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)**				
6.1	Generation basis for calculation	Indicate the generation basis for calculating SO2, NOx, and Hg emissions and intensity. Fossil: Fossil Fuel Generation Only Total: Total System Generation Other: Other (please specify in comment section)			
6.2	**Nitrogen Oxide (NOx)**				
6.2.1	Total NOx Emissions	Total NOx emissions from company equity-owned fossil fuel combustion generation. In accordance with EPA's **Acid Rain Reporting Program** (40 CFR, part 75) or regulatory equivalent.	Metric Tons	Annual	U.S. Environmental Protection Agency, *Acid Rain Reporting Program* (40 CFR, part 75).
6.2.2	Total NOx Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Metric Tons/Net MWh	Annual	
6.3	**Sulfur Dioxide (SO2)**				
6.3.1	Total SO2 Emissions	Total SO2 emissions from company equity-owned fossil fuel combustion generation. In accordance with EPA's **Acid Rain Reporting Program** (40 CFR, part 75) or regulatory equivalent.	Metric Tons	Annual	U.S. Environmental Protection Agency, *Acid Rain Reporting Program* (40 CFR, part 75).
6.3.2	Total SO2 Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Metric Tons/Net MWh	Annual	
6.4	**Mercury (Hg)**				
6.4.1	Total Hg Emissions	Total Mercury emissions from company equity-owned fossil fuel combustion generation. Preferred methods of measurement are performance-based, direct measurement as outlined in the EPA Mercury and Air Toxics Standard (**MATS**). In the absence of performance-based measures, report value aligned with Toxics Release Inventory (**TRI**) or regulatory equivalent for international operations.	Kilograms	Annual	EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
6.4.2	Total Hg Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Kilograms/Net MWh	Annual	

Resources

7	**Human Resources**				
7.1	Total Number of Employees	Average number of employees over the year. To calculate the annual average number of employees: (1) Calculate the total number of employees your establishment paid for all periods. Add the number of employees your establishment paid in every pay period during the data year. Count all employees that you paid at any time during the year and include full-time, part-time, temporary, seasonal, salaried, and hourly workers. Note that pay periods could be monthly, weekly, bi-weekly, and so on. (2) Divide the total number of employees (from step 1) by the number of pay periods your establishment had in during the data year. Be sure to count any pay periods when you had no (zero) employees. (3) Round the answer you computed in step 2 to the next highest whole number.	Number of Employees	Annual	U.S. Department of Labor, Bureau of Labor Statistics, Steps to estimate annual average number of employees, www.bls.gov/respondents/iif/annualavghours.htm. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
7.2	Total Number of Board of Directors/Trustees	Average number of employees on the Board of Directors/Trustees over the year.	Number of Employees	Annual	

Definitions for the EEI ESG/Sustainability Template - Version 1

Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
7.3	Total Women on Board of Directors/Trustees	Total number of women (defined as employees who identify as female) on Board of Directors/Trustees.	Number of Employees	Annual	U.S. Equal Employment Opportunity Commission, EEO Terminology, www.archives.gov/eeo/terminology.html. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
7.4	Total Minorities on Board of Directors/Trustees	Total number of minorities on Board of Directors/Trustees. Minority employees are defined as "the smaller part of a group. A group within a country or state that differs in race, religion or national origin from the dominant group. Minority is used to mean four particular groups who share a race, color or national origin." These groups are: "(1) American Indian or Alaskan Native. A person having origins in any of the original peoples of North America, and who maintain their culture through a tribe or community; (2) Asian or Pacific Islander. A person having origins in any of the original people of the Far East, Southeast Asia, India, or the Pacific Islands. These areas include, for example, China, India, Korea, the Philippine Islands, and Samoa; (3) Black (except Hispanic). A person having origins in any of the black racial groups of Africa; (4) Hispanic. A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race."	Number of Employees	Annual	U.S. Equal Employment Opportunity Commission, EEO Terminology, www.archives.gov/eeo/terminology.html. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
7.5	Employee Safety Metrics				
7.5.1	Recordable Incident Rate	Number of injuries or illnesses x 200,000 / Number of employee labor hours worked. Injury or illness is recordable if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. You must also consider a case to meet the general recording criteria if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. Record the injuries and illnesses of all employees on your payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers. You also must record the recordable injuries and illnesses that occur to employees who are not on your payroll if you supervise these employees on a day-to-day basis. If your business is organized as a sole proprietorship or partnership, the owner or partners are not considered employees for recordkeeping purposes. For temporary employees, you must record these injuries and illnesses if you supervise these employees on a day-to-day basis. If the contractor's employee is under the day-to-day supervision of the contractor, the contractor is responsible for recording the injury or illness. If you supervise the contractor employee's work on a day-to-day basis, you must record the injury or illness.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance*, 2018 Technical Report.
7.5.2	Lost-time Case Rate	Calculated as: Number of lost-time cases x 200,000 / Number of employee labor hours worked. Only report for employees of the company as defined for the "recordable incident rate for employees" metric. A lost-time incident is one that resulted in an employee's inability to work the next full work day.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	Calculated as: Total number of DART incidents x 200,000 / Number of employee labor hours worked. A DART incident is one in which there were one or more lost days or one or more restricted days, or one that resulted in an employee transferring to a different job within the company.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, *Metrics to Benchmark Sustainability Performance for the Electric Power Industry* , 2018 Technical Report.
7.5.4	Work-related Fatalities	Total employee fatalities. Record for all employees on your payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers. Include fatalities to those that occur to employees who are not on your payroll if you supervise these employees on a day-to-day basis. For temporary employees, report fatalities if you supervise these employees on a day-to-day basis.	Number of Employees	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
8	**Fresh Water Resources**				
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	Rate of freshwater consumed for generation. "Freshwater" includes water sourced from fresh surface water, groundwater, rain water, and fresh municipal water. Do NOT include recycled, reclaimed, or gray water. Water consumption is defined as water that is not returned to the original water source after being withdrawn, including evaporation to the atmosphere. Divide billions of liters by equity-owned total net generation from all electric generation as reported under Metric 2, Net Generation for the data year (MWh).	Billions of Liters/Net MWh	Annual	Partially sourced from EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
8.2	Water Withdrawals - Non-Consumptive (Billions of Liters/Net MWh)	Rate of fresh water withdrawn, but not consumed, for generation."Freshwater" includes water sourced from fresh surface water, groundwater, rain water, and fresh municipal water. Do NOT include recycled, reclaimed, or gray water. Information on organizational water withdrawal may be drawn from water meters, water bills, calculations derived from other available water data or (if neither water meters nor bills or reference data exist) the organization's own estimates. Divide billions of liters by equity-owned total net generation from all electric generation as reported under Metric 2, Net Generation for the data year (MWh).	Billions of Liters/Net MWh	Annual	Partially sourced from EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
9	**Waste Products**				
9.1	Amount of Hazardous Waste Manifested for Disposal	Tons of hazardous waste, as defined by the Resource Conservation and Recovery Act (RCRA), manifested for disposal at a Treatment Storage and Disposal (TSD) facility. Methods of disposal include disposing to landfill, surface impoundment, waste pile, and land treatment units. Hazardous wastes include either listed wastes (F, K, P and U lists) or characteristic wastes (wastes which exhibit at least one of the following characteristics - ignitability, corrosivity, reactivity, toxicity).	Tons	Annual	Partially sourced from EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.
9.2	Percent of Coal Combustion Products Beneficially Used	Percent of coal combustion products (CCPs) - fly ash, bottom ash, boiler slag, flue gas desulfurization materials, scrubber bi-product - diverted from disposal into beneficial uses, including being sold. Include any CCP that is generated during the data year and stored for beneficial use in a future year. Only include CCP generated at company equity-owned facilities. If no weight data are available, estimate the weight using available information on waste density and volume collected, mass balances, or similar information.	Percent	Annual	Partially sourced from EPRI, *Metrics to Benchmark Electric Power Company Sustainability Performance,* 2018 Technical Report.

Appendix B-2

CalEEMod Acreage Grading Calculations

B-2.1 Construction Emissions Summaries

Project Construction - Phase 1 + Phase 2 - Tier 4

Air Quality Construction Analysis

Phase	Regional Maximums Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
				lb/day			
1	3.2 Site Preparation - 2021	0.93	20.41	16.45	0.09	2.86	0.82
	3.3 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
	3.3 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
	3.4 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
	3.5 Foundation - 2022	0.54	10.00	11.12	0.05	1.39	0.46
	3.6 Building Construction - 2022	1.16	8.23	15.82	0.04	1.74	0.66
	3.6 Building Construction - 2023	1.09	8.10	15.77	0.04	1.71	0.63
	3.7 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
	3.8 Architectural Coating - 2023	16.61	0.24	3.24	0.01	0.45	0.13
2	3.2 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
	3.2 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
	3.3 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
	3.4 Foundation - 2022	0.61	12.28	11.58	0.05	1.63	0.54
	3.5 Building Construction - 2022	1.20	9.14	16.08	0.04	1.86	0.70
	3.5 Building Construction - 2023	1.13	9.02	16.02	0.04	1.83	0.67
	3.6 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
	3.7 Architectural Coating - 2023	20.40	0.24	3.24	0.01	0.45	0.13

Overlapping Phases between Sites

Phase		ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	2021						
1	Grading/Excavation + Drainage/Utilities/Trenching	1.31	29.42	22.82	0.12	5.92	2.44
2	Grading/Excavation + Drainage/Utilities/Trenching	1.31	29.42	22.82	0.12	5.92	2.44
	Ovelapping between phases total	2.62	58.85	45.65	0.24	11.83	4.89
	2022						
1	Grading/Excavation + Foundation	1.68	38.58	28.33	0.16	7.06	2.82
2	Grading/Excavation	1.15	28.58	17.21	0.11	5.66	2.35
	Ovelapping between phases total	2.83	67.16	45.54	0.27	12.72	5.17
1	Building Construction + Paving	1.44	9.57	29.81	0.06	2.01	0.76
2	Grading/Excavation + Foundation	1.76	40.86	28.80	0.17	7.29	2.89
	Ovelapping between phases total	3.20	50.43	58.60	0.23	9.30	3.65
1	Building Construction + Paving	1.44	9.57	29.81	0.06	2.01	0.76
2	Building Construction + Paving	1.48	10.48	30.06	0.06	2.13	0.80
	Ovelapping between phases total	2.92	20.04	59.87	0.12	4.13	1.56
	2023						
1	Building Construction + Architectural Coating	17.70	8.34	19.01	0.05	2.17	0.76
2	Building Construction + Architectural Coating	21.53	9.25	19.26	0.05	2.29	0.80
	Ovelapping between phases total	39.23	17.59	38.27	0.10	4.45	1.56
	Project Daily Maximum Emissions	**39.23**	**67.16**	**59.87**	**0.27**	**12.72**	**5.17**
	SCAQMD Regional Significance Threshold	75	100	550	150	150	55
	Exceeds Threshold?	No	No	No	No	No	No

Pacific Square FEIR - RTC

Phase 1 - Tier 4

Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2 lb/day	Total PM10	Total PM2.5
3.2 Site Preparation - 2021	0.93	20.41	16.45	0.09	2.86	0.82
3.3 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.4 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.5 Foundation - 2022	0.54	10.00	11.12	0.05	1.39	0.46
3.6 Building Construction - 2022	1.16	8.23	15.82	0.04	1.74	0.66
3.6 Building Construction - 2023	1.09	8.10	15.77	0.04	1.71	0.63
3.7 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.8 Architectural Coating - 2023	16.61	0.24	3.24	0.01	0.45	0.13

Overlapping Phases

	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.68	38.58	28.33	0.16	7.06	2.82
Building Construction + Paving	1.44	9.57	29.81	0.06	2.01	0.76
2023						
Building Construction + Architectural Coating	17.70	8.34	19.01	0.05	2.17	0.76
Project Daily Maximum Emissions	**17.70**	**38.58**	**29.81**	**0.16**	**7.06**	**2.82**
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Pacific Square FEIR - RTC

Phase 1 - Summer - Tier 4

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation - 2021	0.30	1.30	11.86	0.02	0.66	0.11	0.63	19.10	4.59	0.06	2.19	0.72
3.3 Grading - 2021	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.3 Grading - 2022	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.4 Drainage/Utilities/Trenching - 2021	0.15	0.79	4.91	0.01	0.03	0.03	0.01	0.05	0.70	0.00	0.22	0.06
3.5 Foundation - 2022	0.23	1.13	7.92	0.01	0.04	0.04	0.31	8.87	3.19	0.03	1.35	0.42
3.6 Building Construction - 2022	0.96	4.96	11.48	0.02	0.21	0.21	0.20	3.27	4.35	0.02	1.53	0.45
3.6 Building Construction - 2023	0.90	4.84	11.42	0.02	0.18	0.18	0.20	3.27	4.35	0.02	1.53	0.45
3.7 Paving - 2022	0.27	1.28	13.28	0.02	0.04	0.04	0.01	0.05	0.70	0.00	0.22	0.06
3.8 Architectural Coating - 2023	16.58	0.13	1.83	0.00	0.00	0.00	0.03	0.11	1.40	0.00	0.45	0.12

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Site Preparation - 2021	0.93	20.41	16.45	0.09	2.86	0.82
3.3 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.4 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.5 Foundation - 2022	0.54	10.00	11.12	0.05	1.39	0.46
3.6 Building Construction - 2022	1.16	8.23	15.82	0.04	1.74	0.66
3.6 Building Construction - 2023	1.09	8.10	15.77	0.04	1.71	0.63
3.7 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.8 Architectural Coating - 2023	16.61	0.24	3.24	0.01	0.45	0.13

Overlapping Phases	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.68	38.58	28.33	0.16	7.06	2.82
Building Construction + Paving	1.44	9.57	29.81	0.06	2.01	0.76
2023						
Building Construction + Architectural Coating	17.70	8.34	19.01	0.05	2.17	0.76
Project Daily Maximum Emissions	**17.70**	**38.58**	**29.81**	**0.16**	**7.06**	**2.82**

Pacific Square FEIR - RTC
Phase 1 - Winter - Tier 4
Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions					
Source	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
	lb/day						lb/day					
3.2 Site Preparation - 2021	0.30	1.30	11.86	0.02	0.66	0.11	0.63	19.10	4.59	0.06	2.19	0.72
3.3 Grading - 2021	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.3 Grading - 2022	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.4 Drainage/Utilities/Trenching - 2021	0.15	0.79	4.91	0.01	0.03	0.03	0.01	0.05	0.70	0.00	0.22	0.06
3.5 Foundation - 2022	0.23	1.13	7.92	0.01	0.04	0.04	0.31	8.87	3.19	0.03	1.35	0.42
3.6 Building Construction - 2022	0.96	4.96	11.48	0.02	0.21	0.21	0.20	3.27	4.35	0.02	1.53	0.45
3.6 Building Construction - 2023	0.90	4.84	11.42	0.02	0.18	0.18	0.20	3.27	4.35	0.02	1.53	0.45
3.7 Paving - 2022	0.27	1.28	13.28	0.02	0.04	0.04	0.01	0.05	0.70	0.00	0.22	0.06
3.8 Architectural Coating - 2023	16.58	0.13	1.83	0.00	0.00	0.00	0.03	0.11	1.40	0.00	0.45	0.12

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Site Preparation - 2021	0.93	20.41	16.45	0.09	2.86	0.82
3.3 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.4 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.5 Foundation - 2022	0.54	10.00	11.12	0.05	1.39	0.46
3.6 Building Construction - 2022	1.16	8.23	15.82	0.04	1.74	0.66
3.6 Building Construction - 2023	1.09	8.10	15.77	0.04	1.71	0.63
3.7 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.8 Architectural Coating - 2023	16.61	0.24	3.24	0.01	0.45	0.13

Overlapping Phases	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.68	38.58	28.33	0.16	7.06	2.82
Building Construction + Paving	1.44	9.57	29.81	0.06	2.01	0.76
2023						
Building Construction + Architectural Coating	17.70	8.34	19.01	0.05	2.17	0.76
Project Daily Maximum Emissions	**17.70**	**38.58**	**29.81**	**0.16**	**7.06**	**2.82**

Pacific Square FEIR - RTC

Phase 2 - Tier 4

Air Quality Construction Analysis

Regional Maximums Source	ROG	NOX	CO	SO2 lb/day	Total PM10	Total PM2.5
3.2 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.2 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.4 Foundation - 2022	0.61	12.28	11.58	0.05	1.63	0.54
3.5 Building Construction - 2022	1.20	9.14	16.08	0.04	1.86	0.70
3.5 Building Construction - 2023	1.13	9.02	16.02	0.04	1.83	0.67
3.6 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.7 Architectural Coating - 2023	20.40	0.24	3.24	0.01	0.45	0.13

Overlapping Phases

	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.76	40.86	28.80	0.17	7.29	2.89
Building Construction + Paving	1.48	10.48	30.06	0.06	2.13	0.80
2023						
Building Construction + Architectural Coating	21.53	9.25	19.26	0.05	2.29	0.80
Project Daily Maximum Emissions	**21.53**	**40.86**	**30.06**	**0.17**	**7.29**	**2.89**
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Pacific Square FEIR - RTC

Phase 2 - Summer - Tier 4

Air Quality Construction Analysis

Summer	Onsite Emissions						Offsite Emissions					
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
Source	lb/day						lb/day					
3.2 Grading - 2021	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.2 Grading - 2022	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	3.06	1.01
3.3 Drainage/Utilities/Trenching - 2021	0.15	0.79	4.91	0.01	0.03	0.03	0.01	0.05	0.70	0.00	0.22	0.06
3.4 Foundation - 2022	0.23	1.13	7.92	0.01	0.04	0.04	0.38	11.16	3.66	0.04	1.59	0.50
3.5 Building Construction - 2022	0.96	4.96	11.48	0.02	0.21	0.21	0.23	4.18	4.60	0.02	1.65	0.49
3.5 Building Construction - 2023	0.90	4.84	11.42	0.02	0.18	0.18	0.23	4.18	4.60	0.02	1.65	0.49
3.6 Paving - 2022	0.27	1.28	13.28	0.02	0.04	0.04	0.01	0.05	0.70	0.00	0.22	0.06
3.7 Architectural Coating - 2023	20.37	0.13	1.83	0.00	0.00	0.00	0.03	0.11	1.40	0.00	0.45	0.12

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.2 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.4 Foundation - 2022	0.61	12.28	11.58	0.05	1.63	0.54
3.5 Building Construction - 2022	1.20	9.14	16.08	0.04	1.86	0.70
3.5 Building Construction - 2023	1.13	9.02	16.02	0.04	1.83	0.67
3.6 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.7 Architectural Coating - 2023	20.40	0.24	3.24	0.01	0.45	0.13

Overlapping Phases	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.76	40.86	28.80	0.17	7.29	2.89
Building Construction + Paving	1.48	10.48	30.06	0.06	2.13	0.80
2023						
Building Construction + Architectural Coating	21.53	9.25	19.26	0.05	2.29	0.80
Project Daily Maximum Emissions	**21.53**	**40.86**	**30.06**	**0.17**	**7.29**	**2.89**

Pacific Square FEIR - RTC
Phase 2 - Winter - Tier 4
Air Quality Construction Analysis

Winter	Onsite Emissions						Offsite Emissions							
	ROG	NOX	CO	SO2	Total PM10	Total PM2.5	ROG	NOX	CO	SO2	Fugitive PM10	ust PM1	Total PM10	Total PM2.5
Source	lb/day						lb/day							
3.2 Grading - 2021	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	2.74	0.32	3.06	1.01
3.2 Grading - 2022	0.25	1.09	10.91	0.02	2.61	1.35	0.90	27.49	6.30	0.09	2.74	0.32	3.06	1.01
3.3 Drainage/Utilities/Trenching - 2021	0.15	0.79	4.91	0.01	0.03	0.03	0.01	0.05	0.70	0.00	0.22	0.00	0.22	0.06
3.4 Foundation - 2022	0.23	1.13	7.92	0.01	0.04	0.04	0.38	11.16	3.66	0.04	1.46	0.13	1.59	0.50
3.5 Building Construction - 2022	0.96	4.96	11.48	0.02	0.21	0.21	0.23	4.18	4.60	0.02	1.58	0.07	1.65	0.49
3.5 Building Construction - 2023	0.90	4.84	11.42	0.02	0.18	0.18	0.23	4.18	4.60	0.02	1.58	0.07	1.65	0.49
3.6 Paving - 2022	0.27	1.28	13.28	0.02	0.04	0.04	0.01	0.05	0.70	0.00	0.22	0.00	0.22	0.06
3.7 Architectural Coating - 2023	20.37	0.13	1.83	0.00	0.00	0.00	0.03	0.11	1.40	0.00	0.45	0.00	0.45	0.12

Regional Emissions	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
3.2 Grading - 2021	1.15	28.58	17.21	0.11	5.66	2.35
3.2 Grading - 2022	1.15	28.58	17.21	0.11	5.66	2.35
3.3 Drainage/Utilities/Trenching - 2021	0.16	0.85	5.61	0.01	0.25	0.09
3.4 Foundation - 2022	0.61	12.28	11.58	0.05	1.63	0.54
3.5 Building Construction - 2022	1.20	9.14	16.08	0.04	1.86	0.70
3.5 Building Construction - 2023	1.13	9.02	16.02	0.04	1.83	0.67
3.6 Paving - 2022	0.28	1.33	13.98	0.02	0.27	0.10
3.7 Architectural Coating - 2023	20.40	0.24	3.24	0.01	0.45	0.13

Overlapping Phases	ROG	NOX	CO	SO2	Total PM10	Total PM2.5
2021						
Drainage/Utilities/Trenching + Grading/Excavation	1.31	29.42	22.82	0.12	5.92	2.44
2022						
Grading/Excavation + Foundation	1.76	40.86	28.80	0.17	7.29	2.89
Building Construction + Paving	1.48	10.48	30.06	0.06	2.13	0.80
2023						
Building Construction + Architectural Coating	21.53	9.25	19.26	0.05	2.29	0.80
Project Daily Maximum Emissions	**21.53**	**40.86**	**30.06**	**0.17**	**7.29**	**2.89**

Pacific Square - FEIR RTC

Project Construction - Phase 1 + Phase 2

Air Quality Construction Analysis

Phase	Localized Emissions Source	Onsite Emissions NOX	CO	Total PM10	Total PM2.5
		lb/day			
1	3.2 Site Preparation - 2021	18.29	10.75	1.32	0.71
	3.3 Grading - 2021	20.21	9.76	3.49	2.16
	3.3 Grading - 2022	16.98	9.22	3.31	2.00
	3.4 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
	3.5 Foundation - 2022	8.54	6.88	0.41	0.39
	3.6 Building Construction - 2022	11.68	10.68	0.56	0.53
	3.6 Building Construction - 2023	10.91	10.55	0.49	0.46
	3.7 Paving - 2022	9.33	11.70	0.49	0.45
	3.8 Architectural Coating - 2023	1.30	1.81	0.07	0.07
2	3.2 Grading - 2021	20.21	9.76	3.49	2.16
	3.2 Grading - 2022	16.98	9.22	3.31	2.00
	3.3 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
	3.4 Foundation - 2022	8.54	6.88	0.41	0.39
	3.5 Building Construction - 2022	11.68	10.68	0.56	0.53
	3.5 Building Construction - 2023	10.91	10.55	0.49	0.46
	3.6 Paving - 2022	9.33	11.70	0.49	0.45
	3.7 Architectural Coating - 2023	1.30	1.81	0.07	0.07

Phase	Overlapping Phases	NOX	CO	Total PM10	Total PM2.5
	2021				
1	Grading/Excavation + Drainage/Utilities/Trenching	23.95	14.28	3.67	2.32
2	Grading/Excavation + Drainage/Utilities/Trenching	23.95	14.28	3.67	2.32
	Ovelapping between phases total	47.90	28.57	7.33	4.65
	2022				
1	Grading/Excavation + Foundation	16.98	9.22	3.31	2.00
2	Grading/Excavation	25.52	16.10	3.72	2.39
	Ovelapping between phases total	42.51	25.32	7.04	4.39
1	Building Construction + Paving	21.01	22.37	1.04	0.98
2	Grading/Excavation + Foundation	25.52	16.10	3.72	2.39
	Ovelapping between phases total	46.53	38.48	4.77	3.36
1	Building Construction + Paving	21.01	22.37	1.04	0.98
2	Building Construction + Paving	21.01	22.37	1.04	0.98
	Ovelapping between phases total	42.02	44.75	2.09	1.95
	2023				
1	Building Construction + Architectural Coating	12.21	12.36	0.56	0.53
2	Building Construction + Architectural Coating	12.21	12.36	0.56	0.53
	Ovelapping between phases total	24.42	24.71	1.11	1.06
	Project Daily Maximum Emissions	**47.90**	**44.75**	**7.33**	**4.65**
	SCAQMD Regional Significance Threshold	148	1540	12	7
	Exceeds Threshold?	No	No	No	No

SRA 8, 5 acre-site, 25 m to nearest sensitive receptor

Pacific Square - FEIR RTC

Phase 1

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions			
	NOX	CO	Total PM10	Total PM2.5
Source	lb/day			
3.2 Site Preparation - 2021	18.29	10.75	1.32	0.71
3.3 Grading - 2021	20.21	9.76	3.49	2.16
3.3 Grading - 2022	16.98	9.22	3.31	2.00
3.4 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
3.5 Foundation - 2022	8.54	6.88	0.41	0.39
3.6 Building Construction - 2022	11.68	10.68	0.56	0.53
3.6 Building Construction - 2023	10.91	10.55	0.49	0.46
3.7 Paving - 2022	9.33	11.70	0.49	0.45
3.8 Architectural Coating - 2023	1.30	1.81	0.07	0.07

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
3.2 Site Preparation - 2021	18.29	10.75	1.32	0.71
3.3 Grading - 2021	20.21	9.76	3.49	2.16
3.3 Grading - 2022	16.98	9.22	3.31	2.00
3.4 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
3.5 Foundation - 2022	8.54	6.88	0.41	0.39
3.6 Building Construction - 2022	11.68	10.68	0.56	0.53
3.6 Building Construction - 2023	10.91	10.55	0.49	0.46
3.7 Paving - 2022	9.33	11.70	0.49	0.45
3.8 Architectural Coating - 2023	1.30	1.81	0.07	0.07

Overlapping Phases				
	NOX	CO	Total PM10	Total PM2.5
2021				
Drainage/Utilities/Trenching + Grading/Excavation	23.95	14.28	3.67	2.32
2022				
Grading/Excavation + Foundation	25.52	16.10	3.72	2.39
Building Construction + Paving	21.01	22.37	1.04	0.98
2023				
Building Construction + Architectural Coating	12.21	12.36	0.56	0.53
Project Daily Maximum Emissions	**25.52**	**22.37**	**3.72**	**2.39**

Pacific Square FEIR - RTC

Phase 2

Air Quality Construction Analysis

Localized Emissions	Onsite Emissions			
	NOX	CO	Total PM10	Total PM2.5
Source	lb/day			
3.2 Grading - 2021	20.21	9.76	3.49	2.16
3.2 Grading - 2022	16.98	9.22	3.31	2.00
3.3 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
3.4 Foundation - 2022	8.54	6.88	0.41	0.39
3.5 Building Construction - 2022	11.68	10.68	0.56	0.53
3.5 Building Construction - 2023	10.91	10.55	0.49	0.46
3.6 Paving - 2022	9.33	11.70	0.49	0.45
3.7 Architectural Coating - 2023	1.30	1.81	0.07	0.07

Localized Emissions	NOX	CO	Total PM10	Total PM2.5
3.2 Grading - 2021	20.21	9.76	3.49	2.16
3.2 Grading - 2022	16.98	9.22	3.31	2.00
3.3 Drainage/Utilities/Trenching - 2021	3.74	4.52	0.18	0.16
3.4 Foundation - 2022	8.54	6.88	0.41	0.39
3.5 Building Construction - 2022	11.68	10.68	0.56	0.53
3.5 Building Construction - 2023	10.91	10.55	0.49	0.46
3.6 Paving - 2022	9.33	11.70	0.49	0.45
3.7 Architectural Coating - 2023	1.30	1.81	0.07	0.07

Overlapping Phases				
	NOX	CO	Total PM10	Total PM2.5
2021				
Drainage/Utilities/Trenching + Grading/Excavation	23.95	14.28	3.67	2.32
2022				
Grading/Excavation + Foundation	25.52	16.10	3.72	2.39
Building Construction + Paving	21.01	22.37	1.04	0.98
2023				
Building Construction + Architectural Coating	12.21	12.36	0.56	0.53
Project Daily Maximum Emissions	**25.52**	**22.37**	**3.72**	**2.39**

B-2.2 CalEEMod Output

Pacific Square Construction Phase 1

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - construction on-road emissions calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	420.00
tblConstructionPhase	NumDays	6.00	248.00
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	3.00	17.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	53,330.00	53,334.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	25,230.00	25,233.00

tblLandUse	LandUseSquareFeet	2,090.00	2,086.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	HaulingTripNumber	88.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	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	2.1876	23.9493	14.2831	0.0275	6.5961	1.0935	7.6896	3.3741	1.0074	4.3815	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5961	1.1502	7.7463	3.3741	1.0720	4.4462	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**6.5961**	**1.1502**	**7.7463**	**3.3741**	**1.0720**	**4.4462**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	2.1876	23.9493	14.2831	0.0275	2.5725	1.0935	3.6660	1.3159	1.0074	2.3233	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	2.5725	1.1502	3.7227	1.3159	1.0720	2.3879	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**2.5725**	**1.1502**	**3.7227**	**1.3159**	**1.0720**	**2.3879**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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**	**61.00**	**0.00**	**50.32**	**61.00**	**0.00**	**43.99**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/20/2021	6	17	
2	Grading	Grading	5/21/2021	3/5/2022	6	248	
3	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	6	63	
4	Foundation	Building Construction	2/5/2022	4/15/2022	6	60	
5	Building Construction	Building Construction	4/16/2022	8/18/2023	6	420	
6	Paving	Paving	4/16/2022	8/2/2022	6	93	
7	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	6	93	

Acres of Grading (Site Preparation Phase): 25.5

Acres of Grading (Grading Phase): 124

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38

Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Site Preparation	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					1.5954	0.0000	1.5954	0.1725	0.0000	0.1725			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5954**	**0.7019**	**2.2973**	**0.1725**	**0.6457**	**0.8182**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					0.6222	0.0000	0.6222	0.0673	0.0000	0.0673			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**0.6222**	**0.7019**	**1.3241**	**0.0673**	**0.6457**	**0.7130**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5961**	**0.9158**	**7.5119**	**3.3741**	**0.8425**	**4.2166**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**2.5725**	**0.9158**	**3.4882**	**1.3159**	**0.8425**	**2.1584**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5961**	**0.7423**	**7.3384**	**3.3741**	**0.6829**	**4.0570**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.5725**	**0.7423**	**3.3148**	**1.3159**	**0.6829**	**1.9988**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 1

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - construction on-road emissions calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	420.00
tblConstructionPhase	NumDays	6.00	248.00
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	3.00	17.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	53,330.00	53,334.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	25,230.00	25,233.00

tblLandUse	LandUseSquareFeet	2,090.00	2,086.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10
tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	HaulingTripNumber	88.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	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	2.1876	23.9493	14.2831	0.0275	6.5961	1.0935	7.6896	3.3741	1.0074	4.3815	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5961	1.1502	7.7463	3.3741	1.0720	4.4462	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**6.5961**	**1.1502**	**7.7463**	**3.3741**	**1.0720**	**4.4462**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	2.1876	23.9493	14.2831	0.0275	2.5725	1.0935	3.6660	1.3159	1.0074	2.3233	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	2.5725	1.1502	3.7227	1.3159	1.0720	2.3879	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**2.5725**	**1.1502**	**3.7227**	**1.3159**	**1.0720**	**2.3879**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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**	**61.00**	**0.00**	**50.32**	**61.00**	**0.00**	**43.99**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/20/2021	6	17	
2	Grading	Grading	5/21/2021	3/5/2022	6	248	
3	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	6	63	
4	Foundation	Building Construction	2/5/2022	4/15/2022	6	60	
5	Building Construction	Building Construction	4/16/2022	8/18/2023	6	420	
6	Paving	Paving	4/16/2022	8/2/2022	6	93	
7	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	6	93	

Acres of Grading (Site Preparation Phase): 25.5

Acres of Grading (Grading Phase): 124

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38

Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Site Preparation	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					1.5954	0.0000	1.5954	0.1725	0.0000	0.1725			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5954**	**0.7019**	**2.2973**	**0.1725**	**0.6457**	**0.8182**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					0.6222	0.0000	0.6222	0.0673	0.0000	0.0673			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**0.6222**	**0.7019**	**1.3241**	**0.0673**	**0.6457**	**0.7130**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5961**	**0.9158**	**7.5119**	**3.3741**	**0.8425**	**4.2166**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**2.5725**	**0.9158**	**3.4882**	**1.3159**	**0.8425**	**2.1584**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5961**	**0.7423**	**7.3384**	**3.3741**	**0.6829**	**4.0570**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.5725**	**0.7423**	**3.3148**	**1.3159**	**0.6829**	**1.9988**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 2

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - Construction on-road emission calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6.00	253.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	430.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00

tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	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	2.1876	23.9493	14.2831	0.0275	6.5953	1.0935	7.6888	3.3740	1.0074	4.3814	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5953	1.1502	7.7455	3.3740	1.0720	4.4460	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**6.5953**	**1.1502**	**7.7455**	**3.3740**	**1.0720**	**4.4460**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	2.1876	23.9493	14.2831	0.0275	2.5722	1.0935	3.6657	1.3159	1.0074	2.3233	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	2.5722	1.1502	3.7224	1.3159	1.0720	2.3879	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**2.5722**	**1.1502**	**3.7224**	**1.3159**	**1.0720**	**2.3879**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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**	**61.00**	**0.00**	**50.32**	**61.00**	**0.00**	**43.99**	**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	Grading	Grading	8/1/2021	5/23/2022	6	253	
2	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	6	66	
3	Foundation	Building Construction	4/23/2022	7/1/2022	6	60	
4	Building Construction	Building Construction	7/2/2022	11/15/2023	6	430	
5	Paving	Paving	7/2/2022	10/20/2022	6	95	
6	Architectural Coating	Architectural Coating	9/12/2023	12/30/2023	6	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 126.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38
Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37

Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5953**	**0.9158**	**7.5110**	**3.3740**	**0.8425**	**4.2165**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**2.5722**	**0.9158**	**3.4879**	**1.3159**	**0.8425**	**2.1583**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5953**	**0.7423**	**7.3375**	**3.3740**	**0.6829**	**4.0569**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.5722**	**0.7423**	**3.3144**	**1.3159**	**0.6829**	**1.9988**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 2

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - Construction on-road emission calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	6.00	253.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	430.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00

tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10
tblLandUse	LotAcreage	0.47	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	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	2.1876	23.9493	14.2831	0.0275	6.5953	1.0935	7.6888	3.3740	1.0074	4.3814	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5953	1.1502	7.7455	3.3740	1.0720	4.4460	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**6.5953**	**1.1502**	**7.7455**	**3.3740**	**1.0720**	**4.4460**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	2.1876	23.9493	14.2831	0.0275	2.5722	1.0935	3.6657	1.3159	1.0074	2.3233	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	2.5722	1.1502	3.7224	1.3159	1.0720	2.3879	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**2.5722**	**1.1502**	**3.7224**	**1.3159**	**1.0720**	**2.3879**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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**	**61.00**	**0.00**	**50.32**	**61.00**	**0.00**	**43.99**	**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	Grading	Grading	8/1/2021	5/23/2022	6	253	
2	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	6	66	
3	Foundation	Building Construction	4/23/2022	7/1/2022	6	60	
4	Building Construction	Building Construction	7/2/2022	11/15/2023	6	430	
5	Paving	Paving	7/2/2022	10/20/2022	6	95	
6	Architectural Coating	Architectural Coating	9/12/2023	12/30/2023	6	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 126.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38
Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37

Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5953**	**0.9158**	**7.5110**	**3.3740**	**0.8425**	**4.2165**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**2.5722**	**0.9158**	**3.4879**	**1.3159**	**0.8425**	**2.1583**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5953**	**0.7423**	**7.3375**	**3.3740**	**0.6829**	**4.0569**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**2.5722**	**0.7423**	**3.3144**	**1.3159**	**0.6829**	**1.9988**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 1

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - construction on-road emissions calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	420.00
tblConstructionPhase	NumDays	6.00	248.00
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	3.00	17.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	53,330.00	53,334.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	25,230.00	25,233.00
tblLandUse	LandUseSquareFeet	2,090.00	2,086.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10

tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	HaulingTripNumber	88.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	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	2.1876	23.9493	14.2831	0.0275	6.5961	1.0935	7.6896	3.3741	1.0074	4.3815	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5961	1.1502	7.7463	3.3741	1.0720	4.4462	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**6.5961**	**1.1502**	**7.7463**	**3.3741**	**1.0720**	**4.4462**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	0.4012	1.8847	15.8175	0.0275	2.5725	0.0612	2.6337	1.3159	0.0612	1.3771	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	1.2317	6.2420	24.7582	0.0363	2.5725	0.2517	2.6439	1.3159	0.2517	1.3873	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	17.4760	4.9639	13.2548	0.0214	0.0000	0.1870	0.1870	0.0000	0.1870	0.1870	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**17.4760**	**6.2420**	**24.7582**	**0.0363**	**2.5725**	**0.2517**	**2.6439**	**1.3159**	**0.2517**	**1.3873**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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	**16.20**	**78.78**	**-9.83**	**0.00**	**61.00**	**82.15**	**65.83**	**61.00**	**80.85**	**68.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/20/2021	6	17	
2	Grading	Grading	5/21/2021	3/5/2022	6	248	
3	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	6	63	
4	Foundation	Building Construction	2/5/2022	4/15/2022	6	60	
5	Building Construction	Building Construction	4/16/2022	8/18/2023	6	420	
6	Paving	Paving	4/16/2022	8/2/2022	6	93	
7	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	6	93	

Acres of Grading (Site Preparation Phase): 25.5

Acres of Grading (Grading Phase): 124

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38

Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Site Preparation	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					1.5954	0.0000	1.5954	0.1725	0.0000	0.1725			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5954**	**0.7019**	**2.2973**	**0.1725**	**0.6457**	**0.8182**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					0.6222	0.0000	0.6222	0.0673	0.0000	0.0673			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**0.6222**	**0.0401**	**0.6623**	**0.0673**	**0.0401**	**0.1074**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5961**	**0.9158**	**7.5119**	**3.3741**	**0.8425**	**4.2166**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5725**	**0.0336**	**2.6061**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5961**	**0.7423**	**7.3384**	**3.3741**	**0.6829**	**4.0570**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5725**	**0.0336**	**2.6061**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.1490	0.7921	4.9104	6.9200e-003		0.0276	0.0276		0.0276	0.0276	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.1490**	**0.7921**	**4.9104**	**6.9200e-003**		**0.0276**	**0.0276**		**0.0276**	**0.0276**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2266	1.1282	7.9229	0.0144		0.0378	0.0378		0.0378	0.0378	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.2266**	**1.1282**	**7.9229**	**0.0144**		**0.0378**	**0.0378**		**0.0378**	**0.0378**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9625	4.9622	11.4761	0.0184		0.2093	0.2093		0.2093	0.2093	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**0.9625**	**4.9622**	**11.4761**	**0.0184**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8957	4.8351	11.4224	0.0185		0.1830	0.1830		0.1830	0.1830	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**0.8957**	**4.8351**	**11.4224**	**0.0185**		**0.1830**	**0.1830**		**0.1830**	**0.1830**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2691	1.2799	13.2822	0.0179		0.0424	0.0424		0.0424	0.0424	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2691**	**1.2799**	**13.2822**	**0.0179**		**0.0424**	**0.0424**		**0.0424**	**0.0424**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**16.5802**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 1

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	418.00	Space	1.00	167,200.00	0
Other Non-Asphalt Surfaces	53.33	1000sqft	0.12	53,334.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.65	1000sqft	0.10	5,650.00	0
Health Club	25.23	1000sqft	0.10	25,233.00	0
High Turnover (Sit Down Restaurant)	2.09	1000sqft	0.10	2,086.00	0
Apartments Mid Rise	106.00	Dwelling Unit	1.00	182,330.00	303

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - construction on-road emissions calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	420.00
tblConstructionPhase	NumDays	6.00	248.00
tblConstructionPhase	NumDays	10.00	93.00
tblConstructionPhase	NumDays	3.00	17.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblGrading	MaterialExported	0.00	700.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	53,330.00	53,334.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	25,230.00	25,233.00
tblLandUse	LandUseSquareFeet	2,090.00	2,086.00
tblLandUse	LandUseSquareFeet	106,000.00	182,330.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	3.76	1.00
tblLandUse	LotAcreage	1.22	0.12
tblLandUse	LotAcreage	0.13	0.10

tblLandUse	LotAcreage	0.58	0.10
tblLandUse	LotAcreage	0.05	0.10
tblLandUse	LotAcreage	2.79	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	HaulingTripNumber	88.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	VendorTripNumber	56.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	191.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	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	2.1876	23.9493	14.2831	0.0275	6.5961	1.0935	7.6896	3.3741	1.0074	4.3815	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5961	1.1502	7.7463	3.3741	1.0720	4.4462	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	18.1499	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**18.1499**	**25.5243**	**22.3743**	**0.0363**	**6.5961**	**1.1502**	**7.7463**	**3.3741**	**1.0720**	**4.4462**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	0.4012	1.8847	15.8175	0.0275	2.5725	0.0612	2.6337	1.3159	0.0612	1.3771	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	1.2317	6.2420	24.7582	0.0363	2.5725	0.2517	2.6439	1.3159	0.2517	1.3873	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	17.4760	4.9639	13.2548	0.0214	0.0000	0.1870	0.1870	0.0000	0.1870	0.1870	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**17.4760**	**6.2420**	**24.7582**	**0.0363**	**2.5725**	**0.2517**	**2.6439**	**1.3159**	**0.2517**	**1.3873**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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	**16.20**	**78.78**	**-9.83**	**0.00**	**61.00**	**82.15**	**65.83**	**61.00**	**80.85**	**68.46**	**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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	7.7669	32.3318	85.3374	0.3013	25.7499	0.2383	25.9881	6.8908	0.2216	7.1124		30,721.7735	30,721.7735	1.6224		30,762.3333
Total	**40.7509**	**35.6025**	**148.7092**	**0.4452**	**25.7499**	**8.4595**	**34.2094**	**6.8908**	**8.4428**	**15.3336**	**992.8934**	**33,837.2792**	**34,830.1725**	**4.6217**	**0.0892**	**34,972.3069**

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	32.8748	2.3006	62.7055	0.1380		8.1458	8.1458		8.1458	8.1458	992.8934	1,923.8577	2,916.7511	2.9764	0.0674	3,011.2443
Energy	0.1092	0.9702	0.6663	5.9600e-003		0.0755	0.0755		0.0755	0.0755		1,191.6479	1,191.6479	0.0228	0.0219	1,198.7293
Mobile	7.7669	32.3318	85.3374	0.3013	25.7499	0.2383	25.9881	6.8908	0.2216	7.1124		30,721.7735	30,721.7735	1.6224		30,762.3333
Total	**40.7509**	**35.6025**	**148.7092**	**0.4452**	**25.7499**	**8.4595**	**34.2094**	**6.8908**	**8.4428**	**15.3336**	**992.8934**	**33,837.2792**	**34,830.1725**	**4.6217**	**0.0892**	**34,972.3069**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2021	5/20/2021	6	17	
2	Grading	Grading	5/21/2021	3/5/2022	6	248	
3	Drainage/Utilities/Trenching	Trenching	5/21/2021	8/2/2021	6	63	
4	Foundation	Building Construction	2/5/2022	4/15/2022	6	60	
5	Building Construction	Building Construction	4/16/2022	8/18/2023	6	420	
6	Paving	Paving	4/16/2022	8/2/2022	6	93	
7	Architectural Coating	Architectural Coating	6/15/2023	9/30/2023	6	93	

Acres of Grading (Site Preparation Phase): 25.5

Acres of Grading (Grading Phase): 124

Acres of Paving: 1.12

Residential Indoor: 369,218; Residential Outdoor: 123,073; Non-Residential Indoor: 54,528; Non-Residential Outdoor: 18,176; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38

Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Site Preparation	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					1.5954	0.0000	1.5954	0.1725	0.0000	0.1725			0.0000			0.0000
Off-Road	1.5463	18.2862	10.7496	0.0245		0.7019	0.7019		0.6457	0.6457		2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**1.5463**	**18.2862**	**10.7496**	**0.0245**	**1.5954**	**0.7019**	**2.2973**	**0.1725**	**0.6457**	**0.8182**		**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					0.6222	0.0000	0.6222	0.0673	0.0000	0.0673			0.0000			0.0000
Off-Road	0.3008	1.3034	11.8595	0.0245		0.0401	0.0401		0.0401	0.0401	0.0000	2,372.8832	2,372.8832	0.7674		2,392.0692
Total	**0.3008**	**1.3034**	**11.8595**	**0.0245**	**0.6222**	**0.0401**	**0.6623**	**0.0673**	**0.0401**	**0.1074**	**0.0000**	**2,372.8832**	**2,372.8832**	**0.7674**		**2,392.0692**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5961**	**0.9158**	**7.5119**	**3.3741**	**0.8425**	**4.2166**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5725**	**0.0336**	**2.6061**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 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					6.5961	0.0000	6.5961	3.3741	0.0000	3.3741			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5961**	**0.7423**	**7.3384**	**3.3741**	**0.6829**	**4.0570**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5725	0.0000	2.5725	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5725**	**0.0336**	**2.6061**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.1490	0.7921	4.9104	6.9200e-003		0.0276	0.0276		0.0276	0.0276	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.1490**	**0.7921**	**4.9104**	**6.9200e-003**		**0.0276**	**0.0276**		**0.0276**	**0.0276**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.5 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2266	1.1282	7.9229	0.0144		0.0378	0.0378		0.0378	0.0378	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.2266**	**1.1282**	**7.9229**	**0.0144**		**0.0378**	**0.0378**		**0.0378**	**0.0378**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9625	4.9622	11.4761	0.0184		0.2093	0.2093		0.2093	0.2093	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**0.9625**	**4.9622**	**11.4761**	**0.0184**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8957	4.8351	11.4224	0.0185		0.1830	0.1830		0.1830	0.1830	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**0.8957**	**4.8351**	**11.4224**	**0.0185**		**0.1830**	**0.1830**		**0.1830**	**0.1830**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2691	1.2799	13.2822	0.0179		0.0424	0.0424		0.0424	0.0424	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2691**	**1.2799**	**13.2822**	**0.0179**		**0.0424**	**0.0424**		**0.0424**	**0.0424**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**16.7422**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	16.5505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**16.5802**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 2

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	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - Construction on-road emission calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	6.00	253.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	430.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00
tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10

tblLandUse	LotAcreage	0.47	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	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	2.1876	23.9493	14.2831	0.0275	6.5953	1.0935	7.6888	3.3740	1.0074	4.3814	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5953	1.1502	7.7455	3.3740	1.0720	4.4460	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**6.5953**	**1.1502**	**7.7455**	**3.3740**	**1.0720**	**4.4460**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	0.4012	1.8847	15.8175	0.0275	2.5722	0.0612	2.6333	1.3159	0.0612	1.3770	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	1.2317	6.2420	24.7582	0.0363	2.5722	0.2517	2.6436	1.3159	0.2517	1.3873	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.2664	4.9639	13.2548	0.0214	0.0000	0.1870	0.1870	0.0000	0.1870	0.1870	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.2664**	**6.2420**	**24.7582**	**0.0363**	**2.5722**	**0.2517**	**2.6436**	**1.3159**	**0.2517**	**1.3873**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	NOx	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	**13.90**	**78.78**	**-9.83**	**0.00**	**61.00**	**82.15**	**65.83**	**61.00**	**80.85**	**68.46**	**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	Grading	Grading	8/1/2021	5/23/2022	6	253	
2	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	6	66	
3	Foundation	Building Construction	4/23/2022	7/1/2022	6	60	
4	Building Construction	Building Construction	7/2/2022	11/15/2023	6	430	
5	Paving	Paving	7/2/2022	10/20/2022	6	95	
6	Architectural Coating	Architectural Coating	9/12/2023	12/30/2023	6	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 126.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38
Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5953**	**0.9158**	**7.5110**	**3.3740**	**0.8425**	**4.2165**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5722**	**0.0336**	**2.6058**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5953**	**0.7423**	**7.3375**	**3.3740**	**0.6829**	**4.0569**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5722**	**0.0336**	**2.6058**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.1490	0.7921	4.9104	6.9200e-003		0.0276	0.0276		0.0276	0.0276	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.1490**	**0.7921**	**4.9104**	**6.9200e-003**		**0.0276**	**0.0276**		**0.0276**	**0.0276**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2266	1.1282	7.9229	0.0144		0.0378	0.0378		0.0378	0.0378	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.2266**	**1.1282**	**7.9229**	**0.0144**		**0.0378**	**0.0378**		**0.0378**	**0.0378**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9625	4.9622	11.4761	0.0184		0.2093	0.2093		0.2093	0.2093	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**0.9625**	**4.9622**	**11.4761**	**0.0184**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8957	4.8351	11.4224	0.0185		0.1830	0.1830		0.1830	0.1830	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**0.8957**	**4.8351**	**11.4224**	**0.0185**		**0.1830**	**0.1830**		**0.1830**	**0.1830**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2691	1.2799	13.2822	0.0179		0.0424	0.0424		0.0424	0.0424	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2691**	**1.2799**	**13.2822**	**0.0179**		**0.0424**	**0.0424**		**0.0424**	**0.0424**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**20.3707**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Pacific Square Construction Phase 2

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.38	1000sqft	0.10	3,383.00	0
Enclosed Parking with Elevator	565.00	Space	0.90	226,000.00	0
Other Non-Asphalt Surfaces	63.13	1000sqft	0.13	63,127.00	0
City Park	0.40	Acre	0.40	17,575.00	0
Fast Food Restaurant w/o Drive Thru	5.95	1000sqft	0.10	5,952.00	0
High Turnover (Sit Down Restaurant)	2.91	1000sqft	0.10	2,914.00	0
Apartments Mid Rise	145.00	Dwelling Unit	1.00	237,168.00	415
Strip Mall	7.12	1000sqft	0.10	7,115.00	0
Supermarket	20.33	1000sqft	0.10	20,330.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - see construction assumptions

Construction Phase - see construction assumptions

Off-road Equipment -

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment - see construction assumptions

Off-road Equipment -

Trips and VMT - Construction on-road emission calculated outside of CalEEMod.

Grading - see construction assumptions

Construction Off-road Equipment Mitigation - see construction assumptions

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	6.00	253.00
tblConstructionPhase	NumDays	220.00	60.00
tblConstructionPhase	NumDays	220.00	430.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDays	10.00	95.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	MaterialExported	0.00	96,000.00
tblLandUse	LandUseSquareFeet	3,380.00	3,383.00
tblLandUse	LandUseSquareFeet	63,130.00	63,127.00
tblLandUse	LandUseSquareFeet	17,424.00	17,575.00
tblLandUse	LandUseSquareFeet	5,950.00	5,952.00
tblLandUse	LandUseSquareFeet	2,910.00	2,914.00
tblLandUse	LandUseSquareFeet	145,000.00	237,168.00
tblLandUse	LandUseSquareFeet	7,120.00	7,115.00
tblLandUse	LotAcreage	0.08	0.10
tblLandUse	LotAcreage	5.08	0.90
tblLandUse	LotAcreage	1.45	0.13
tblLandUse	LotAcreage	0.14	0.10
tblLandUse	LotAcreage	0.07	0.10
tblLandUse	LotAcreage	3.82	1.00
tblLandUse	LotAcreage	0.16	0.10

tblLandUse	LotAcreage	0.47	0.10
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	HaulingTripNumber	12,000.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	VendorTripNumber	72.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	247.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	49.00	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	2.1876	23.9493	14.2831	0.0275	6.5953	1.0935	7.6888	3.3740	1.0074	4.3814	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	2.4667	25.5243	22.3743	0.0363	6.5953	1.1502	7.7455	3.3740	1.0720	4.4460	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.9404	12.2114	12.3562	0.0214	0.0000	0.5562	0.5562	0.0000	0.5306	0.5306	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.9404**	**25.5243**	**22.3743**	**0.0363**	**6.5953**	**1.1502**	**7.7455**	**3.3740**	**1.0720**	**4.4460**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

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	0.4012	1.8847	15.8175	0.0275	2.5722	0.0612	2.6333	1.3159	0.0612	1.3770	0.0000	2,653.6086	2,653.6086	0.8451	0.0000	2,674.7352
2022	1.2317	6.2420	24.7582	0.0363	2.5722	0.2517	2.6436	1.3159	0.2517	1.3873	0.0000	3,375.9359	3,375.9359	0.9539	0.0000	3,399.7840
2023	21.2664	4.9639	13.2548	0.0214	0.0000	0.1870	0.1870	0.0000	0.1870	0.1870	0.0000	1,947.9368	1,947.9368	0.4224	0.0000	1,958.4971
Maximum	**21.2664**	**6.2420**	**24.7582**	**0.0363**	**2.5722**	**0.2517**	**2.6436**	**1.3159**	**0.2517**	**1.3873**	**0.0000**	**3,375.9359**	**3,375.9359**	**0.9539**	**0.0000**	**3,399.7840**

	ROG	**NOx**	**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	**13.90**	**78.78**	**-9.83**	**0.00**	**61.00**	**82.15**	**65.83**	**61.00**	**80.85**	**68.46**	**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	Grading	Grading	8/1/2021	5/23/2022	6	253	
2	Drainage/Utilities/Trenching	Trenching	8/1/2021	10/16/2021	6	66	
3	Foundation	Building Construction	4/23/2022	7/1/2022	6	60	
4	Building Construction	Building Construction	7/2/2022	11/15/2023	6	430	
5	Paving	Paving	7/2/2022	10/20/2022	6	95	
6	Architectural Coating	Architectural Coating	9/12/2023	12/30/2023	6	95	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 126.5

Acres of Paving: 1.03

Residential Indoor: 480,265; Residential Outdoor: 160,088; Non-Residential Indoor: 59,541; Non-Residential Outdoor: 19,847; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Drainage/Utilities/Trenching	Dumpers/Tenders	1	8.00	16	0.38
Drainage/Utilities/Trenching	Rough Terrain Forklifts	1	8.00	100	0.40
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Foundation	Cranes	1	8.00	231	0.29
Foundation	Dumpers/Tenders	1	8.00	16	0.38
Foundation	Forklifts	1	7.00	89	0.20
Foundation	Generator Sets	0	8.00	84	0.74
Foundation	Pumps	1	8.00	84	0.74
Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Foundation	Welders	0	8.00	46	0.45
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Grading	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Foundation	4	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.8271	20.2135	9.7604	0.0206		0.9158	0.9158		0.8425	0.8425		1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**1.8271**	**20.2135**	**9.7604**	**0.0206**	**6.5953**	**0.9158**	**7.5110**	**3.3740**	**0.8425**	**4.2165**		**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.6114	1,995.6114	0.6454		2,011.7470
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5722**	**0.0336**	**2.6058**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.6114**	**1,995.6114**	**0.6454**		**2,011.7470**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 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					6.5953	0.0000	6.5953	3.3740	0.0000	3.3740			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**6.5953**	**0.7423**	**7.3375**	**3.3740**	**0.6829**	**4.0569**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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					2.5722	0.0000	2.5722	1.3159	0.0000	1.3159			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**2.5722**	**0.0336**	**2.6058**	**1.3159**	**0.0336**	**1.3495**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Drainage/Utilities/Trenching - 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					
Off-Road	0.3605	3.7357	4.5227	6.9200e-003		0.1778	0.1778		0.1649	0.1649		657.9972	657.9972	0.1996		662.9882
Total	**0.3605**	**3.7357**	**4.5227**	**6.9200e-003**		**0.1778**	**0.1778**		**0.1649**	**0.1649**		**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.1490	0.7921	4.9104	6.9200e-003		0.0276	0.0276		0.0276	0.0276	0.0000	657.9972	657.9972	0.1996		662.9882
Total	**0.1490**	**0.7921**	**4.9104**	**6.9200e-003**		**0.0276**	**0.0276**		**0.0276**	**0.0276**	**0.0000**	**657.9972**	**657.9972**	**0.1996**		**662.9882**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.4 Foundation - 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	0.8978	8.5407	6.8845	0.0144		0.4079	0.4079		0.3891	0.3891		1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.8978**	**8.5407**	**6.8845**	**0.0144**		**0.4079**	**0.4079**		**0.3891**	**0.3891**		**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2266	1.1282	7.9229	0.0144		0.0378	0.0378		0.0378	0.0378	0.0000	1,372.3322	1,372.3322	0.2610		1,378.8563
Total	**0.2266**	**1.1282**	**7.9229**	**0.0144**		**0.0378**	**0.0378**		**0.0378**	**0.0378**	**0.0000**	**1,372.3322**	**1,372.3322**	**0.2610**		**1,378.8563**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.5255	11.6758	10.6773	0.0184		0.5553	0.5553		0.5262	0.5262		1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**1.5255**	**11.6758**	**10.6773**	**0.0184**		**0.5553**	**0.5553**		**0.5262**	**0.5262**		**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.9625	4.9622	11.4761	0.0184		0.2093	0.2093		0.2093	0.2093	0.0000	1,666.2467	1,666.2467	0.4121		1,676.5484
Total	**0.9625**	**4.9622**	**11.4761**	**0.0184**		**0.2093**	**0.2093**		**0.2093**	**0.2093**	**0.0000**	**1,666.2467**	**1,666.2467**	**0.4121**		**1,676.5484**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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	1.4078	10.9084	10.5451	0.0185		0.4854	0.4854		0.4598	0.4598		1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**1.4078**	**10.9084**	**10.5451**	**0.0185**		**0.4854**	**0.4854**		**0.4598**	**0.4598**		**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.8957	4.8351	11.4224	0.0185		0.1830	0.1830		0.1830	0.1830	0.0000	1,666.4888	1,666.4888	0.4056		1,676.6281
Total	**0.8957**	**4.8351**	**11.4224**	**0.0185**		**0.1830**	**0.1830**		**0.1830**	**0.1830**	**0.0000**	**1,666.4888**	**1,666.4888**	**0.4056**		**1,676.6281**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.6 Paving - 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	0.9412	9.3322	11.6970	0.0179		0.4879	0.4879		0.4500	0.4500		1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9412**	**9.3322**	**11.6970**	**0.0179**		**0.4879**	**0.4879**		**0.4500**	**0.4500**		**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	0.2691	1.2799	13.2822	0.0179		0.0424	0.0424		0.0424	0.0424	0.0000	1,709.6892	1,709.6892	0.5419		1,723.2356
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2691**	**1.2799**	**13.2822**	**0.0179**		**0.0424**	**0.0424**		**0.0424**	**0.0424**	**0.0000**	**1,709.6892**	**1,709.6892**	**0.5419**		**1,723.2356**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**20.5326**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated 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	20.3409					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**20.3707**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Appendix B-3

Screening Operational Health Risk Assessment

Unmitigated - Operational Health Risk
Assumptions and Risk Summary

Pacific Square

Unmitigated Operational Health Risk Assumptions

	3rd	0-2	2-16	>16	Units
DBR	361	1090	631	261	L/kg
A	1	1	1	1	no units
EF	0.958904	0.958904	0.958904	0.958904	years
Constant 1	0.000001	0.000001	0.000001	0.000001	no units
CPF	1.1	1.1	1.1	1.1	mg/kg-day-1
ASF	10	10	3	1	no units
700 San Gabriel					
Operation	0.00	0.00	13.59	14.00	years
800 San Gabriel					
Operation			13.59	14.00	years
AT	70	70	70	70	years
FAH	0.85	1	1	0.73	day
Constant 2	1,000,000	1,000,000	1,000,000	1,000,000	no units

Dose =	(Cair X DBR X A X EF X Constant 1)
Cancer Risk =	Dose X CPF x ASF x (ED/AT) X FAH
Risk per Million =	Cancer Risk X Constant 2

Mitigation

1 Tier 4 Equipment for all onsite equipment > than 50 horse power unless identified specifically below.

On-Road Emissions

		lbs/day	gr/day	Miles/day	gr/mile
700	Operations	1.81	818.73423	15604.5	0.0524678
800	Operations	1.81	818.73423	15604.5	0.0524678

		Source ID	*Length (meters)*	*Length (Miles)*	*gr/day*	*gr/sec*
700	Operations	Haul	*1,082*	0.67	*0.03528*	*9.80E-07*
800	Operations	Haul	*1,082*	0.67	*0.03528*	*9.80E-07*

Pacific Square

Unmitigated Operational Health Risk Assumptions

Onsite Line Volume	7.315	meter Plum Height		
	5	meter release height		
OnRoad Line Volume	7.315	meter Plum Height	1082.2	meters
	3.05	meter release height		

Met Data From SRA 11 - Pico Rivera Station: years 2010-2012, 2015-2016

Elevataion 58 meters

Pacific Square

Unmitigated Operational Cancer Risk Summary

Max Risk

0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
1	399396	3772479	0.0066	3.3E-03	3.3E-03
2	399030	3772509	0.0006	2.9E-04	2.9E-04
3	399080	3772509	0.0007	3.6E-04	3.6E-04
4	399130	3772509	0.0009	4.7E-04	4.7E-04
5	399180	3772509	0.0013	6.3E-04	6.3E-04
6	399230	3772509	0.0019	9.3E-04	9.3E-04
7	399280	3772509	0.0032	1.6E-03	1.6E-03
8	399330	3772509	0.0054	2.7E-03	2.7E-03
9	399430	3772509	0.0057	2.8E-03	2.8E-03
10	399480	3772509	0.0030	1.5E-03	1.5E-03
11	399530	3772509	0.0020	9.8E-04	9.8E-04
12	399580	3772509	0.0014	7.0E-04	7.0E-04
13	399630	3772509	0.0011	5.3E-04	5.3E-04
14	399680	3772509	0.0008	4.1E-04	4.1E-04
15	399730	3772509	0.0007	3.3E-04	3.3E-04
16	399780	3772509	0.0005	2.7E-04	2.7E-04
17	399830	3772509	0.0005	2.3E-04	2.3E-04
18	399880	3772509	0.0004	1.9E-04	1.9E-04
19	399030	3772559	0.0006	2.9E-04	2.9E-04
20	399080	3772559	0.0007	3.7E-04	3.7E-04
21	399130	3772559	0.0009	4.7E-04	4.7E-04
22	399180	3772559	0.0013	6.4E-04	6.4E-04
23	399230	3772559	0.0019	9.3E-04	9.3E-04
24	399280	3772559	0.0032	1.6E-03	1.6E-03
25	399330	3772559	0.0053	2.7E-03	2.7E-03
26	399430	3772559	0.0057	2.8E-03	2.8E-03
27	399480	3772559	0.0030	1.5E-03	1.5E-03
28	399530	3772559	0.0020	9.9E-04	9.9E-04
29	399580	3772559	0.0014	7.1E-04	7.1E-04
30	399630	3772559	0.0011	5.3E-04	5.3E-04
31	399680	3772559	0.0008	4.2E-04	4.2E-04
32	399730	3772559	0.0007	3.4E-04	3.4E-04
33	399780	3772559	0.0006	2.8E-04	2.8E-04
34	399830	3772559	0.0005	2.4E-04	2.4E-04
35	399880	3772559	0.0004	2.0E-04	2.0E-04
36	399030	3772609	0.0006	2.9E-04	2.9E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
37	399080	3772609	0.0007	3.6E-04	3.6E-04
38	399130	3772609	0.0009	4.7E-04	4.7E-04
39	399180	3772609	0.0013	6.4E-04	6.4E-04
40	399230	3772609	0.0019	9.4E-04	9.4E-04
41	399280	3772609	0.0032	1.6E-03	1.6E-03
42	399330	3772609	0.0053	2.6E-03	2.6E-03
43	399430	3772609	0.0057	2.8E-03	2.8E-03
44	399480	3772609	0.0030	1.5E-03	1.5E-03
45	399530	3772609	0.0020	9.9E-04	9.9E-04
46	399580	3772609	0.0014	7.1E-04	7.1E-04
47	399630	3772609	0.0011	5.4E-04	5.4E-04
48	399680	3772609	0.0009	4.3E-04	4.3E-04
49	399730	3772609	0.0007	3.5E-04	3.5E-04
50	399780	3772609	0.0006	2.9E-04	2.9E-04
51	399830	3772609	0.0005	2.4E-04	2.4E-04
52	399880	3772609	0.0004	2.0E-04	2.0E-04
53	399030	3772659	0.0006	2.9E-04	2.9E-04
54	399080	3772659	0.0007	3.6E-04	3.6E-04
55	399130	3772659	0.0009	4.7E-04	4.7E-04
56	399180	3772659	0.0013	6.4E-04	6.4E-04
57	399230	3772659	0.0019	9.4E-04	9.4E-04
58	399280	3772659	0.0032	1.6E-03	1.6E-03
59	399330	3772659	0.0053	2.6E-03	2.6E-03
60	399415	3772637	0.0074	3.7E-03	3.7E-03
61	399430	3772659	0.0056	2.8E-03	2.8E-03
62	399480	3772659	0.0030	1.5E-03	1.5E-03
63	399530	3772659	0.0020	9.9E-04	9.9E-04
64	399580	3772659	0.0014	7.2E-04	7.2E-04
65	399630	3772659	0.0011	5.5E-04	5.5E-04
66	399680	3772659	0.0009	4.3E-04	4.3E-04
67	399730	3772659	0.0007	3.5E-04	3.5E-04
68	399780	3772659	0.0006	2.9E-04	2.9E-04
69	399830	3772659	0.0005	2.5E-04	2.5E-04
70	399880	3772659	0.0004	2.1E-04	2.1E-04
71	399030	3772709	0.0006	2.8E-04	2.8E-04
72	399080	3772709	0.0007	3.5E-04	3.5E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
73	399130	3772709	0.0009	4.6E-04	4.6E-04
74	399180	3772709	0.0013	6.3E-04	6.3E-04
75	399230	3772709	0.0019	9.3E-04	9.3E-04
76	399280	3772709	0.0032	1.6E-03	1.6E-03
77	399330	3772709	0.0054	2.7E-03	2.7E-03
78	399380	3772709	0.0048	2.4E-03	2.4E-03
79	399430	3772709	0.0057	2.8E-03	2.8E-03
80	399480	3772709	0.0030	1.5E-03	1.5E-03
81	399530	3772709	0.0020	9.9E-04	9.9E-04
82	399580	3772709	0.0014	7.2E-04	7.2E-04
83	399630	3772709	0.0011	5.5E-04	5.5E-04
84	399680	3772709	0.0009	4.3E-04	4.3E-04
85	399730	3772709	0.0007	3.5E-04	3.5E-04
86	399780	3772709	0.0006	2.9E-04	2.9E-04
87	399830	3772709	0.0005	2.5E-04	2.5E-04
88	399880	3772709	0.0004	2.1E-04	2.1E-04
89	399030	3772759	0.0006	2.8E-04	2.8E-04
90	399080	3772759	0.0007	3.5E-04	3.5E-04
91	399130	3772759	0.0009	4.6E-04	4.6E-04
92	399180	3772759	0.0012	6.2E-04	6.2E-04
93	399230	3772759	0.0018	9.2E-04	9.2E-04
94	399280	3772759	0.0032	1.6E-03	1.6E-03
95	399330	3772759	0.0035	1.8E-03	1.8E-03
96	399530	3772759	0.0020	9.9E-04	9.9E-04
97	399580	3772759	0.0014	7.1E-04	7.1E-04
98	399630	3772759	0.0011	5.4E-04	5.4E-04
99	399680	3772759	0.0009	4.3E-04	4.3E-04
100	399730	3772759	0.0007	3.5E-04	3.5E-04
101	399780	3772759	0.0006	2.9E-04	2.9E-04
102	399830	3772759	0.0005	2.5E-04	2.5E-04
103	399880	3772759	0.0004	2.1E-04	2.1E-04
104	399030	3772809	0.0005	2.7E-04	2.7E-04
105	399080	3772809	0.0007	3.4E-04	3.4E-04
106	399130	3772809	0.0009	4.4E-04	4.4E-04
107	399180	3772809	0.0012	6.1E-04	6.1E-04
108	399230	3772809	0.0018	9.1E-04	9.1E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
109	399280	3772809	0.0032	1.6E-03	1.6E-03
110	399430	3772809	0.0056	2.8E-03	2.8E-03
111	399480	3772809	0.0030	1.5E-03	1.5E-03
112	399530	3772809	0.0020	9.8E-04	9.8E-04
113	399580	3772809	0.0014	7.1E-04	7.1E-04
114	399630	3772809	0.0011	5.4E-04	5.4E-04
115	399680	3772809	0.0009	4.3E-04	4.3E-04
116	399730	3772809	0.0007	3.5E-04	3.5E-04
117	399780	3772809	0.0006	2.9E-04	2.9E-04
118	399830	3772809	0.0005	2.5E-04	2.5E-04
119	399880	3772809	0.0004	2.1E-04	2.1E-04
120	399030	3772859	0.0005	2.6E-04	2.6E-04
121	399080	3772859	0.0007	3.3E-04	3.3E-04
122	399130	3772859	0.0009	4.3E-04	4.3E-04
123	399180	3772859	0.0012	5.9E-04	5.9E-04
124	399430	3772859	0.0055	2.8E-03	2.8E-03
125	399480	3772859	0.0030	1.5E-03	1.5E-03
126	399530	3772859	0.0019	9.7E-04	9.7E-04
127	399580	3772859	0.0014	7.0E-04	7.0E-04
128	399630	3772859	0.0011	5.3E-04	5.3E-04
129	399680	3772859	0.0008	4.2E-04	4.2E-04
130	399730	3772859	0.0007	3.4E-04	3.4E-04
131	399780	3772859	0.0006	2.9E-04	2.9E-04
132	399830	3772859	0.0005	2.4E-04	2.4E-04
133	399880	3772859	0.0004	2.1E-04	2.1E-04
134	399030	3772909	0.0005	2.5E-04	2.5E-04
135	399080	3772909	0.0006	3.1E-04	3.1E-04
136	399130	3772909	0.0008	4.1E-04	4.1E-04
137	399180	3772909	0.0011	5.7E-04	5.7E-04
138	399230	3772909	0.0017	8.6E-04	8.6E-04
139	399280	3772909	0.0031	1.5E-03	1.5E-03
140	399330	3772909	0.0052	2.6E-03	2.6E-03
141	399530	3772909	0.0019	9.5E-04	9.5E-04
142	399580	3772909	0.0014	6.8E-04	6.8E-04
143	399630	3772909	0.0010	5.1E-04	5.1E-04
144	399730	3772909	0.0007	3.4E-04	3.4E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
145	399780	3772909	0.0006	2.8E-04	2.8E-04
146	399830	3772909	0.0005	2.4E-04	2.4E-04
147	399880	3772909	0.0004	2.1E-04	2.1E-04
148	399030	3772959	0.0005	2.3E-04	2.3E-04
149	399080	3772959	0.0006	2.9E-04	2.9E-04
150	399130	3772959	0.0008	3.8E-04	3.8E-04
151	399180	3772959	0.0011	5.4E-04	5.4E-04
152	399230	3772959	0.0016	8.2E-04	8.2E-04
153	399280	3772959	0.0029	1.4E-03	1.4E-03
154	399330	3772959	0.0050	2.5E-03	2.5E-03
155	399530	3772959	0.0018	9.1E-04	9.1E-04
156	399580	3772959	0.0013	6.6E-04	6.6E-04
157	399630	3772959	0.0010	5.0E-04	5.0E-04
158	399030	3773009	0.0004	2.2E-04	2.2E-04
159	399080	3773009	0.0005	2.7E-04	2.7E-04
160	399130	3773009	0.0007	3.5E-04	3.5E-04
161	399180	3773009	0.0010	4.9E-04	4.9E-04
162	399230	3773009	0.0015	7.5E-04	7.5E-04
163	399280	3773009	0.0027	1.4E-03	1.4E-03
164	399330	3773009	0.0048	2.4E-03	2.4E-03
165	399530	3773009	0.0017	8.7E-04	8.7E-04
166	399580	3773009	0.0013	6.3E-04	6.3E-04
167	399630	3773009	0.0010	4.8E-04	4.8E-04
168	399030	3773059	0.0004	2.0E-04	2.0E-04
169	399080	3773059	0.0005	2.4E-04	2.4E-04
170	399130	3773059	0.0006	3.2E-04	3.2E-04
171	399180	3773059	0.0009	4.4E-04	4.4E-04
172	399230	3773059	0.0013	6.6E-04	6.6E-04
173	399280	3773059	0.0024	1.2E-03	1.2E-03
174	399330	3773059	0.0043	2.1E-03	2.1E-03
175	399530	3773059	0.0016	8.1E-04	8.1E-04
176	399580	3773059	0.0012	5.9E-04	5.9E-04
177	399630	3773059	0.0009	4.6E-04	4.6E-04
178	399030	3773109	0.0004	1.8E-04	1.8E-04
179	399080	3773109	0.0004	2.2E-04	2.2E-04
180	399130	3773109	0.0006	2.8E-04	2.8E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
181	399180	3773109	0.0008	3.8E-04	3.8E-04
182	399230	3773109	0.0011	5.5E-04	5.5E-04
183	399280	3773109	0.0019	9.3E-04	9.3E-04
184	399330	3773109	0.0023	1.2E-03	1.2E-03
185	399530	3773109	0.0014	7.2E-04	7.2E-04
186	399580	3773109	0.0011	5.4E-04	5.4E-04
187	399630	3773109	0.0009	4.3E-04	4.3E-04
188	399030	3773159	0.0003	1.6E-04	1.6E-04
189	399080	3773159	0.0004	2.0E-04	2.0E-04
190	399130	3773159	0.0005	2.4E-04	2.4E-04
191	399180	3773159	0.0006	3.2E-04	3.2E-04
192	399230	3773159	0.0009	4.3E-04	4.3E-04
193	399280	3773159	0.0013	6.4E-04	6.4E-04
194	399330	3773159	0.0021	1.1E-03	1.1E-03
195	399530	3773159	0.0012	6.2E-04	6.2E-04
196	399580	3773159	0.0010	4.8E-04	4.8E-04
197	399630	3773159	0.0008	3.9E-04	3.9E-04
198	399030	3773209	0.0003	1.4E-04	1.4E-04
199	399080	3773209	0.0003	1.7E-04	1.7E-04
200	399130	3773209	0.0004	2.1E-04	2.1E-04
201	399180	3773209	0.0005	2.6E-04	2.6E-04
202	399230	3773209	0.0007	3.3E-04	3.3E-04
203	399280	3773209	0.0009	4.5E-04	4.5E-04
204	399330	3773209	0.0012	6.1E-04	6.1E-04
205	399530	3773209	0.0010	5.1E-04	5.1E-04
206	399580	3773209	0.0008	4.2E-04	4.2E-04
207	399630	3773209	0.0007	3.5E-04	3.5E-04
208	399830	3773209	0.0004	2.0E-04	2.0E-04
209	399880	3773209	0.0004	1.8E-04	1.8E-04
210	399030	3773259	0.0003	1.3E-04	1.3E-04
211	399080	3773259	0.0003	1.5E-04	1.5E-04
212	399130	3773259	0.0004	1.8E-04	1.8E-04
213	399180	3773259	0.0004	2.2E-04	2.2E-04
214	399230	3773259	0.0005	2.7E-04	2.7E-04
215	399280	3773259	0.0007	3.3E-04	3.3E-04
216	399330	3773259	0.0008	4.1E-04	4.1E-04

Pacific Square
Unmitigated Operational Cancer Risk Summary

Max Risk
0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
217	399680	3773259	0.0005	2.7E-04	2.7E-04
218	399730	3773259	0.0005	2.4E-04	2.4E-04
219	399780	3773259	0.0004	2.2E-04	2.2E-04
220	399830	3773259	0.0004	2.0E-04	2.0E-04
221	399880	3773259	0.0003	1.7E-04	1.7E-04
222	399030	3773309	0.0002	1.2E-04	1.2E-04
223	399080	3773309	0.0003	1.3E-04	1.3E-04
224	399130	3773309	0.0003	1.5E-04	1.5E-04
225	399180	3773309	0.0004	1.8E-04	1.8E-04
226	399230	3773309	0.0004	2.2E-04	2.2E-04
227	399280	3773309	0.0005	2.6E-04	2.6E-04
228	399330	3773309	0.0006	3.1E-04	3.1E-04
229	399630	3773309	0.0005	2.7E-04	2.7E-04
230	399680	3773309	0.0005	2.5E-04	2.5E-04
231	399730	3773309	0.0004	2.2E-04	2.2E-04
232	399780	3773309	0.0004	2.0E-04	2.0E-04
233	399830	3773309	0.0004	1.8E-04	1.8E-04
234	399880	3773309	0.0003	1.6E-04	1.6E-04
235	399030	3773359	0.0002	1.0E-04	1.0E-04
236	399080	3773359	0.0002	1.2E-04	1.2E-04
237	399130	3773359	0.0003	1.4E-04	1.4E-04
238	399180	3773359	0.0003	1.6E-04	1.6E-04
239	399230	3773359	0.0004	1.8E-04	1.8E-04
240	399280	3773359	0.0004	2.1E-04	2.1E-04
241	399330	3773359	0.0005	2.4E-04	2.4E-04
242	399630	3773359	0.0005	2.4E-04	2.4E-04
243	399680	3773359	0.0004	2.2E-04	2.2E-04
244	399730	3773359	0.0004	2.0E-04	2.0E-04
245	399780	3773359	0.0004	1.8E-04	1.8E-04
246	399830	3773359	0.0003	1.7E-04	1.7E-04
247	399880	3773359	0.0003	1.5E-04	1.5E-04
248	399030	3773409	0.0002	9.4E-05	9.4E-05
249	399080	3773409	0.0002	1.1E-04	1.1E-04
250	399130	3773409	0.0002	1.2E-04	1.2E-04
251	399180	3773409	0.0003	1.4E-04	1.4E-04
252	399230	3773409	0.0003	1.6E-04	1.6E-04

Pacific Square

Unmitigated Operational Cancer Risk Summary

Max Risk

0.0074

Receptor #	X	Y	Total Risk	700 OP	800 OP
253	399280	3773409	0.0004	1.8E-04	1.8E-04
254	399330	3773409	0.0004	2.0E-04	2.0E-04
255	399630	3773409	0.0004	2.1E-04	2.1E-04
256	399680	3773409	0.0004	1.9E-04	1.9E-04
257	399730	3773409	0.0004	1.8E-04	1.8E-04
258	399780	3773409	0.0003	1.7E-04	1.7E-04
259	399830	3773409	0.0003	1.5E-04	1.5E-04
260	399880	3773409	0.0003	1.4E-04	1.4E-04

Unmitigated 700 San Gabriel Operation - On-Road Emissions

Pacific Square

Unmitigated 700 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(2-16)	(Risk / Mill)	
1	7.84959	9.80E-07	7.7E-06	631	1	0.96	0.000001	4.7E-09	1.1	3	13.59	70	1	2.98E-09	0.0030	**Max**
2	0.69414	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	0.0003	3.4E-03
3	0.86553	9.80E-07	8.5E-07	631	1	0.96	0.000001	5.1E-10	1.1	3	13.59	70	1	3.29E-10	0.0003	
4	1.11603	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.24E-10	0.0004	**Max Rec**
5	1.51095	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.74E-10	0.0006	60
6	2.21555	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.42E-10	0.0008	
7	3.79059	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.44E-09	0.0014	
8	6.48208	9.80E-07	6.4E-06	631	1	0.96	0.000001	3.8E-09	1.1	3	13.59	70	1	2.46E-09	0.0025	
9	6.73877	9.80E-07	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	0.0026	
10	3.57953	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.36E-09	0.0014	
11	2.33142	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.86E-10	0.0009	
12	1.66785	9.80E-07	1.6E-06	631	1	0.96	0.000001	9.9E-10	1.1	3	13.59	70	1	6.34E-10	0.0006	
13	1.25295	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.4E-10	1.1	3	13.59	70	1	4.76E-10	0.0005	
14	0.98622	9.80E-07	9.7E-07	631	1	0.96	0.000001	5.8E-10	1.1	3	13.59	70	1	3.75E-10	0.0004	
15	0.79583	9.80E-07	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	0.0003	
16	0.6542	9.80E-07	6.4E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.49E-10	0.0002	
17	0.54686	9.80E-07	5.4E-07	631	1	0.96	0.000001	3.2E-10	1.1	3	13.59	70	1	2.08E-10	0.0002	
18	0.4635	9.80E-07	4.5E-07	631	1	0.96	0.000001	2.7E-10	1.1	3	13.59	70	1	1.76E-10	0.0002	
19	0.69573	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	0.0003	
20	0.87053	9.80E-07	8.5E-07	631	1	0.96	0.000001	5.2E-10	1.1	3	13.59	70	1	3.31E-10	0.0003	
21	1.12301	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.7E-10	1.1	3	13.59	70	1	4.27E-10	0.0004	
22	1.52072	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.78E-10	0.0006	
23	2.22741	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.46E-10	0.0008	
24	3.80918	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	0.0014	
25	6.32106	9.80E-07	6.2E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.40E-09	0.0024	
26	6.75904	9.80E-07	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.57E-09	0.0026	
27	3.59725	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	0.0014	
28	2.35412	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.94E-10	0.0009	
29	1.68913	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.42E-10	0.0006	
30	1.27097	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.5E-10	1.1	3	13.59	70	1	4.83E-10	0.0005	
31	1.00827	9.80E-07	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.83E-10	0.0004	
32	0.81413	9.80E-07	8.0E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.09E-10	0.0003	
33	0.67105	9.80E-07	6.6E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.55E-10	0.0003	
34	0.56219	9.80E-07	5.5E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.14E-10	0.0002	
35	0.47522	9.80E-07	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.81E-10	0.0002	
36	0.69439	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	0.0003	
37	0.86955	9.80E-07	8.5E-07	631	1	0.96	0.000001	5.2E-10	1.1	3	13.59	70	1	3.30E-10	0.0003	
38	1.12362	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.7E-10	1.1	3	13.59	70	1	4.27E-10	0.0004	
39	1.52262	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.78E-10	0.0006	
40	2.23299	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.48E-10	0.0008	

41	3.81963	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	0.0015
42	6.26441	9.80E-07	6.1E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.38E-09	0.0024
43	6.74591	9.80E-07	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	0.0026
44	3.60774	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	0.0014
45	2.36716	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.99E-10	0.0009
46	1.70293	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.47E-10	0.0006
47	1.28624	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.89E-10	0.0005
48	1.02186	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	0.0004
49	0.82742	9.80E-07	8.1E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.14E-10	0.0003
50	0.68629	9.80E-07	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	0.0003
51	0.57661	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.19E-10	0.0002
52	0.48842	9.80E-07	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.86E-10	0.0002
53	0.68646	9.80E-07	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	0.0003
54	0.86138	9.80E-07	8.4E-07	631	1	0.96	0.000001	5.1E-10	1.1	3	13.59	70	1	3.27E-10	0.0003
55	1.11682	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.24E-10	0.0004
56	1.51719	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.76E-10	0.0006
57	2.23059	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.47E-10	0.0008
58	3.82205	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	0.0015
59	6.31595	9.80E-07	6.2E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.40E-09	0.0024
60	8.82797	9.80E-07	8.7E-06	631	1	0.96	0.000001	5.2E-09	1.1	3	13.59	70	1	3.35E-09	0.0034
61	6.73578	9.80E-07	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	0.0026
62	3.60825	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	0.0014
63	2.37153	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	9.01E-10	0.0009
64	1.70978	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.50E-10	0.0006
65	1.30175	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.95E-10	0.0005
66	1.0279	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.91E-10	0.0004
67	0.83591	9.80E-07	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.18E-10	0.0003
68	0.69492	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	0.0003
69	0.58533	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.22E-10	0.0002
70	0.49654	9.80E-07	4.9E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.89E-10	0.0002
71	0.67902	9.80E-07	6.7E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.58E-10	0.0003
72	0.84614	9.80E-07	8.3E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.21E-10	0.0003
73	1.10552	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.20E-10	0.0004
74	1.50081	9.80E-07	1.5E-06	631	1	0.96	0.000001	8.9E-10	1.1	3	13.59	70	1	5.70E-10	0.0006
75	2.22069	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.44E-10	0.0008
76	3.81377	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	0.0014
77	6.48226	9.80E-07	6.4E-06	631	1	0.96	0.000001	3.8E-09	1.1	3	13.59	70	1	2.46E-09	0.0025
78	5.68136	9.80E-07	5.6E-06	631	1	0.96	0.000001	3.4E-09	1.1	3	13.59	70	1	2.16E-09	0.0022
79	6.76219	9.80E-07	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.57E-09	0.0026
80	3.60463	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	0.0014
81	2.37028	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	9.01E-10	0.0009
82	1.7119	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.50E-10	0.0007
83	1.30055	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.94E-10	0.0005
84	1.03078	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.92E-10	0.0004
85	0.83978	9.80E-07	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	0.0003
86	0.69672	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.65E-10	0.0003

87	0.59019	9.80E-07	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.24E-10	0.0002
88	0.50207	9.80E-07	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	0.0002
89	0.66433	9.80E-07	6.5E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.52E-10	0.0003
90	0.8307	9.80E-07	8.1E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.16E-10	0.0003
91	1.08526	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.4E-10	1.1	3	13.59	70	1	4.12E-10	0.0004
92	1.48258	9.80E-07	1.5E-06	631	1	0.96	0.000001	8.8E-10	1.1	3	13.59	70	1	5.63E-10	0.0006
93	2.20304	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.37E-10	0.0008
94	3.79931	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.44E-09	0.0014
95	4.20947	9.80E-07	4.1E-06	631	1	0.96	0.000001	2.5E-09	1.1	3	13.59	70	1	1.60E-09	0.0016
96	2.36021	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.97E-10	0.0009
97	1.70221	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.47E-10	0.0006
98	1.29401	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.92E-10	0.0005
99	1.03049	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.92E-10	0.0004
100	0.83891	9.80E-07	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	0.0003
101	0.70013	9.80E-07	6.9E-07	631	1	0.96	0.000001	4.2E-10	1.1	3	13.59	70	1	2.66E-10	0.0003
102	0.59205	9.80E-07	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.25E-10	0.0002
103	0.50685	9.80E-07	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.93E-10	0.0002
104	0.64484	9.80E-07	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.45E-10	0.0002
105	0.80397	9.80E-07	7.9E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.05E-10	0.0003
106	1.05582	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.3E-10	1.1	3	13.59	70	1	4.01E-10	0.0004
107	1.45291	9.80E-07	1.4E-06	631	1	0.96	0.000001	8.6E-10	1.1	3	13.59	70	1	5.52E-10	0.0006
108	2.16666	9.80E-07	2.1E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.23E-10	0.0008
109	3.76891	9.80E-07	3.7E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.43E-09	0.0014
110	6.68034	9.80E-07	6.5E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.54E-09	0.0025
111	3.56428	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.35E-09	0.0014
112	2.34093	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.89E-10	0.0009
113	1.68604	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.41E-10	0.0006
114	1.2844	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.88E-10	0.0005
115	1.02204	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	0.0004
116	0.83609	9.80E-07	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.18E-10	0.0003
117	0.69659	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.65E-10	0.0003
118	0.59035	9.80E-07	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.24E-10	0.0002
119	0.50692	9.80E-07	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.93E-10	0.0002
120	0.62015	9.80E-07	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.36E-10	0.0002
121	0.77991	9.80E-07	7.6E-07	631	1	0.96	0.000001	4.6E-10	1.1	3	13.59	70	1	2.96E-10	0.0003
122	1.01976	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.87E-10	0.0004
123	1.40884	9.80E-07	1.4E-06	631	1	0.96	0.000001	8.4E-10	1.1	3	13.59	70	1	5.35E-10	0.0005
124	6.6152	9.80E-07	6.5E-06	631	1	0.96	0.000001	3.9E-09	1.1	3	13.59	70	1	2.51E-09	0.0025
125	3.52497	9.80E-07	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.34E-09	0.0013
126	2.30408	9.80E-07	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.75E-10	0.0009
127	1.65956	9.80E-07	1.6E-06	631	1	0.96	0.000001	9.8E-10	1.1	3	13.59	70	1	6.30E-10	0.0006
128	1.25485	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.4E-10	1.1	3	13.59	70	1	4.77E-10	0.0005
129	1.00531	9.80E-07	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.82E-10	0.0004
130	0.8207	9.80E-07	8.0E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.12E-10	0.0003
131	0.68673	9.80E-07	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	0.0003
132	0.58293	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.21E-10	0.0002

133	0.50163	9.80E-07	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	0.0002
134	0.5881	9.80E-07	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.23E-10	0.0002
135	0.74269	9.80E-07	7.3E-07	631	1	0.96	0.000001	4.4E-10	1.1	3	13.59	70	1	2.82E-10	0.0003
136	0.96714	9.80E-07	9.5E-07	631	1	0.96	0.000001	5.7E-10	1.1	3	13.59	70	1	3.67E-10	0.0004
137	1.35288	9.80E-07	1.3E-06	631	1	0.96	0.000001	8.0E-10	1.1	3	13.59	70	1	5.14E-10	0.0005
138	2.04278	9.80E-07	2.0E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.76E-10	0.0008
139	3.64077	9.80E-07	3.6E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.38E-09	0.0014
140	6.24071	9.80E-07	6.1E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.37E-09	0.0024
141	2.2556	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.57E-10	0.0009
142	1.62462	9.80E-07	1.6E-06	631	1	0.96	0.000001	9.6E-10	1.1	3	13.59	70	1	6.17E-10	0.0006
143	1.22391	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.3E-10	1.1	3	13.59	70	1	4.65E-10	0.0005
144	0.8106	9.80E-07	7.9E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.08E-10	0.0003
145	0.67887	9.80E-07	6.7E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.58E-10	0.0003
146	0.57564	9.80E-07	5.6E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.19E-10	0.0002
147	0.5017	9.80E-07	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	0.0002
148	0.55379	9.80E-07	5.4E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.10E-10	0.0002
149	0.69145	9.80E-07	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.63E-10	0.0003
150	0.9103	9.80E-07	8.9E-07	631	1	0.96	0.000001	5.4E-10	1.1	3	13.59	70	1	3.46E-10	0.0003
151	1.27858	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.86E-10	0.0005
152	1.95251	9.80E-07	1.9E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.42E-10	0.0007
153	3.45638	9.80E-07	3.4E-06	631	1	0.96	0.000001	2.0E-09	1.1	3	13.59	70	1	1.31E-09	0.0013
154	5.97837	9.80E-07	5.9E-06	631	1	0.96	0.000001	3.5E-09	1.1	3	13.59	70	1	2.27E-09	0.0023
155	2.18131	9.80E-07	2.1E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.29E-10	0.0008
156	1.57102	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.3E-10	1.1	3	13.59	70	1	5.97E-10	0.0006
157	1.193	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.1E-10	1.1	3	13.59	70	1	4.53E-10	0.0005
158	0.514	9.80E-07	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.95E-10	0.0002
159	0.64174	9.80E-07	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.44E-10	0.0002
160	0.84434	9.80E-07	8.3E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.21E-10	0.0003
161	1.17856	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.0E-10	1.1	3	13.59	70	1	4.48E-10	0.0004
162	1.79658	9.80E-07	1.8E-06	631	1	0.96	0.000001	1.1E-09	1.1	3	13.59	70	1	6.83E-10	0.0007
163	3.27633	9.80E-07	3.2E-06	631	1	0.96	0.000001	1.9E-09	1.1	3	13.59	70	1	1.24E-09	0.0012
164	5.69488	9.80E-07	5.6E-06	631	1	0.96	0.000001	3.4E-09	1.1	3	13.59	70	1	2.16E-09	0.0022
165	2.07373	9.80E-07	2.0E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.88E-10	0.0008
166	1.49941	9.80E-07	1.5E-06	631	1	0.96	0.000001	8.9E-10	1.1	3	13.59	70	1	5.70E-10	0.0006
167	1.15459	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.8E-10	1.1	3	13.59	70	1	4.39E-10	0.0004
168	0.47033	9.80E-07	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.79E-10	0.0002
169	0.58361	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.22E-10	0.0002
170	0.75719	9.80E-07	7.4E-07	631	1	0.96	0.000001	4.5E-10	1.1	3	13.59	70	1	2.88E-10	0.0003
171	1.04858	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.2E-10	1.1	3	13.59	70	1	3.98E-10	0.0004
172	1.57522	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.3E-10	1.1	3	13.59	70	1	5.98E-10	0.0006
173	2.86966	9.80E-07	2.8E-06	631	1	0.96	0.000001	1.7E-09	1.1	3	13.59	70	1	1.09E-09	0.0011
174	5.10895	9.80E-07	5.0E-06	631	1	0.96	0.000001	3.0E-09	1.1	3	13.59	70	1	1.94E-09	0.0019
175	1.92231	9.80E-07	1.9E-06	631	1	0.96	0.000001	1.1E-09	1.1	3	13.59	70	1	7.30E-10	0.0007
176	1.40708	9.80E-07	1.4E-06	631	1	0.96	0.000001	8.3E-10	1.1	3	13.59	70	1	5.35E-10	0.0005
177	1.09413	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.5E-10	1.1	3	13.59	70	1	4.16E-10	0.0004
178	0.4249	9.80E-07	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.61E-10	0.0002

179	0.52518	9.80E-07	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	2.00E-10	0.0002
180	0.66387	9.80E-07	6.5E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.52E-10	0.0003
181	0.89629	9.80E-07	8.8E-07	631	1	0.96	0.000001	5.3E-10	1.1	3	13.59	70	1	3.41E-10	0.0003
182	1.30098	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.94E-10	0.0005
183	2.21134	9.80E-07	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.40E-10	0.0008
184	2.7708	9.80E-07	2.7E-06	631	1	0.96	0.000001	1.6E-09	1.1	3	13.59	70	1	1.05E-09	0.0011
185	1.721	9.80E-07	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.54E-10	0.0007
186	1.29162	9.80E-07	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.91E-10	0.0005
187	1.02155	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	0.0004
188	0.38306	9.80E-07	3.8E-07	631	1	0.96	0.000001	2.3E-10	1.1	3	13.59	70	1	1.46E-10	0.0001
189	0.46684	9.80E-07	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.77E-10	0.0002
190	0.5779	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.20E-10	0.0002
191	0.75128	9.80E-07	7.4E-07	631	1	0.96	0.000001	4.5E-10	1.1	3	13.59	70	1	2.85E-10	0.0003
192	1.01513	9.80E-07	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.86E-10	0.0004
193	1.5177	9.80E-07	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.77E-10	0.0006
194	2.54345	9.80E-07	2.5E-06	631	1	0.96	0.000001	1.5E-09	1.1	3	13.59	70	1	9.66E-10	0.0010
195	1.46828	9.80E-07	1.4E-06	631	1	0.96	0.000001	8.7E-10	1.1	3	13.59	70	1	5.58E-10	0.0006
196	1.15024	9.80E-07	1.1E-06	631	1	0.96	0.000001	6.8E-10	1.1	3	13.59	70	1	4.37E-10	0.0004
197	0.9359	9.80E-07	9.2E-07	631	1	0.96	0.000001	5.5E-10	1.1	3	13.59	70	1	3.56E-10	0.0004
198	0.34196	9.80E-07	3.4E-07	631	1	0.96	0.000001	2.0E-10	1.1	3	13.59	70	1	1.30E-10	0.0001
199	0.41148	9.80E-07	4.0E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.56E-10	0.0002
200	0.4889	9.80E-07	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.86E-10	0.0002
201	0.61981	9.80E-07	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.35E-10	0.0002
202	0.79441	9.80E-07	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	0.0003
203	1.06251	9.80E-07	1.0E-06	631	1	0.96	0.000001	6.3E-10	1.1	3	13.59	70	1	4.04E-10	0.0004
204	1.44346	9.80E-07	1.4E-06	631	1	0.96	0.000001	8.6E-10	1.1	3	13.59	70	1	5.48E-10	0.0005
205	1.20838	9.80E-07	1.2E-06	631	1	0.96	0.000001	7.2E-10	1.1	3	13.59	70	1	4.59E-10	0.0005
206	1.00007	9.80E-07	9.8E-07	631	1	0.96	0.000001	5.9E-10	1.1	3	13.59	70	1	3.80E-10	0.0004
207	0.84039	9.80E-07	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	0.0003
208	0.48794	9.80E-07	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.85E-10	0.0002
209	0.43479	9.80E-07	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.65E-10	0.0002
210	0.30866	9.80E-07	3.0E-07	631	1	0.96	0.000001	1.8E-10	1.1	3	13.59	70	1	1.17E-10	0.0001
211	0.36033	9.80E-07	3.5E-07	631	1	0.96	0.000001	2.1E-10	1.1	3	13.59	70	1	1.37E-10	0.0001
212	0.42556	9.80E-07	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.62E-10	0.0002
213	0.51943	9.80E-07	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.97E-10	0.0002
214	0.63723	9.80E-07	6.2E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.42E-10	0.0002
215	0.79377	9.80E-07	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	0.0003
216	0.98061	9.80E-07	9.6E-07	631	1	0.96	0.000001	5.8E-10	1.1	3	13.59	70	1	3.73E-10	0.0004
217	0.63803	9.80E-07	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.42E-10	0.0002
218	0.58252	9.80E-07	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.21E-10	0.0002
219	0.51714	9.80E-07	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.96E-10	0.0002
220	0.46637	9.80E-07	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.77E-10	0.0002
221	0.41613	9.80E-07	4.1E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.58E-10	0.0002
222	0.27487	9.80E-07	2.7E-07	631	1	0.96	0.000001	1.6E-10	1.1	3	13.59	70	1	1.04E-10	0.0001
223	0.31609	9.80E-07	3.1E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.20E-10	0.0001
224	0.36696	9.80E-07	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.39E-10	0.0001

225	0.43823	9.80E-07	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.66E-10	0.0002
226	0.51931	9.80E-07	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.97E-10	0.0002
227	0.6198	9.80E-07	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.35E-10	0.0002
228	0.72917	9.80E-07	7.1E-07	631	1	0.96	0.000001	4.3E-10	1.1	3	13.59	70	1	2.77E-10	0.0003
229	0.64059	9.80E-07	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.43E-10	0.0002
230	0.58777	9.80E-07	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.23E-10	0.0002
231	0.52861	9.80E-07	5.2E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	2.01E-10	0.0002
232	0.47676	9.80E-07	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.81E-10	0.0002
233	0.43438	9.80E-07	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.65E-10	0.0002
234	0.39099	9.80E-07	3.8E-07	631	1	0.96	0.000001	2.3E-10	1.1	3	13.59	70	1	1.49E-10	0.0001
235	0.24964	9.80E-07	2.4E-07	631	1	0.96	0.000001	1.5E-10	1.1	3	13.59	70	1	9.48E-11	0.0001
236	0.2828	9.80E-07	2.8E-07	631	1	0.96	0.000001	1.7E-10	1.1	3	13.59	70	1	1.07E-10	0.0001
237	0.32399	9.80E-07	3.2E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.23E-10	0.0001
238	0.37417	9.80E-07	3.7E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.42E-10	0.0001
239	0.43292	9.80E-07	4.2E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.64E-10	0.0002
240	0.50275	9.80E-07	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	0.0002
241	0.5739	9.80E-07	5.6E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.18E-10	0.0002
242	0.56117	9.80E-07	5.5E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.13E-10	0.0002
243	0.52384	9.80E-07	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.99E-10	0.0002
244	0.47962	9.80E-07	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.82E-10	0.0002
245	0.43842	9.80E-07	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.67E-10	0.0002
246	0.39818	9.80E-07	3.9E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.51E-10	0.0002
247	0.36472	9.80E-07	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.39E-10	0.0001
248	0.22412	9.80E-07	2.2E-07	631	1	0.96	0.000001	1.3E-10	1.1	3	13.59	70	1	8.51E-11	0.0001
249	0.25227	9.80E-07	2.5E-07	631	1	0.96	0.000001	1.5E-10	1.1	3	13.59	70	1	9.58E-11	0.0001
250	0.28514	9.80E-07	2.8E-07	631	1	0.96	0.000001	1.7E-10	1.1	3	13.59	70	1	1.08E-10	0.0001
251	0.32492	9.80E-07	3.2E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.23E-10	0.0001
252	0.37033	9.80E-07	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.41E-10	0.0001
253	0.42191	9.80E-07	4.1E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.60E-10	0.0002
254	0.46865	9.80E-07	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.78E-10	0.0002
255	0.49239	9.80E-07	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.87E-10	0.0002
256	0.46206	9.80E-07	4.5E-07	631	1	0.96	0.000001	2.7E-10	1.1	3	13.59	70	1	1.76E-10	0.0002
257	0.42952	9.80E-07	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.63E-10	0.0002
258	0.3982	9.80E-07	3.9E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.51E-10	0.0002
259	0.36865	9.80E-07	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.40E-10	0.0001
260	0.34261	9.80E-07	3.4E-07	631	1	0.96	0.000001	2.0E-10	1.1	3	13.59	70	1	1.30E-10	0.0001

Pacific Square

Unmitigated 700 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)		Total Risk	
1	7.7E-06	261	1	0.96	0.000001	1.9E-09	1.1	1	14.00	70	0.73	3.09E-10	3.09E-04	**Max**	3.29E-03	**Max**
2	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.73E-11	2.73E-05	3.5E-04	2.91E-04	0.00
3	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.41E-11	3.41E-05		3.63E-04	
4	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.40E-11	4.40E-05	**Max Rec**	4.68E-04	**Max Rec**
5	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.95E-11	5.95E-05	60	6.34E-04	60
6	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.73E-11	8.73E-05		9.29E-04	
7	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.49E-10	1.49E-04		1.59E-03	
8	6.4E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.55E-10	2.55E-04		2.72E-03	
9	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.65E-10	2.65E-04		2.83E-03	
10	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.41E-10	1.41E-04		1.50E-03	
11	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.18E-11	9.18E-05		9.78E-04	
12	1.6E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.57E-11	6.57E-05		6.99E-04	
13	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	4.94E-11	4.94E-05		5.25E-04	
14	9.7E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.88E-11	3.88E-05		4.14E-04	
15	7.8E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.13E-11	3.13E-05		3.34E-04	
16	6.4E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.58E-11	2.58E-05		2.74E-04	
17	5.4E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.15E-11	2.15E-05		2.29E-04	
18	4.5E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.83E-11	1.83E-05		1.94E-04	
19	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	2.74E-05		2.92E-04	
20	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.43E-11	3.43E-05		3.65E-04	
21	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.42E-11	4.42E-05		4.71E-04	
22	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.99E-11	5.99E-05		6.38E-04	
23	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.77E-11	8.77E-05		9.34E-04	
24	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.50E-10	1.50E-04		1.60E-03	
25	6.2E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.49E-10	2.49E-04		2.65E-03	
26	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	2.66E-04		2.83E-03	
27	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	1.42E-04		1.51E-03	
28	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.27E-11	9.27E-05		9.87E-04	
29	1.7E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.65E-11	6.65E-05		7.08E-04	
30	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	5.01E-11	5.01E-05		5.33E-04	
31	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.97E-11	3.97E-05		4.23E-04	
32	8.0E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.21E-11	3.21E-05		3.41E-04	
33	6.6E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.64E-11	2.64E-05		2.81E-04	
34	5.5E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.21E-11	2.21E-05		2.36E-04	
35	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.87E-11	1.87E-05		1.99E-04	
36	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	2.74E-05		2.91E-04	
37	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.43E-11	3.43E-05		3.65E-04	
38	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.43E-11	4.43E-05		4.71E-04	
39	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	6.00E-11	6.00E-05		6.38E-04	
40	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.80E-11	8.80E-05		9.36E-04	

41	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.50E-10	1.50E-04	1.60E-03
42	6.1E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.47E-10	2.47E-04	2.63E-03
43	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	2.66E-04	2.83E-03
44	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	1.42E-04	1.51E-03
45	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.32E-11	9.32E-05	9.93E-04
46	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.71E-11	6.71E-05	7.14E-04
47	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.07E-11	5.07E-05	5.39E-04
48	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.03E-11	4.03E-05	4.28E-04
49	8.1E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.26E-11	3.26E-05	3.47E-04
50	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.70E-11	2.70E-05	2.88E-04
51	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.27E-11	2.27E-05	2.42E-04
52	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.92E-11	1.92E-05	2.05E-04
53	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.70E-11	2.70E-05	2.88E-04
54	8.4E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.39E-11	3.39E-05	3.61E-04
55	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.40E-11	4.40E-05	4.68E-04
56	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.98E-11	5.98E-05	6.36E-04
57	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.79E-11	8.79E-05	9.35E-04
58	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.51E-10	1.51E-04	1.60E-03
59	6.2E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.49E-10	2.49E-04	2.65E-03
60	8.7E-06	261	1	0.96	0.000001	2.2E-09	1.1	1	14.00	70	0.73	3.48E-10	3.48E-04	3.70E-03
61	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.65E-10	2.65E-04	2.82E-03
62	3.5E-06	261	1	0.96	0.000001	8.9E-10	1.1	1	14.00	70	0.73	1.42E-10	1.42E-04	1.51E-03
63	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.34E-11	9.34E-05	9.94E-04
64	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.74E-11	6.74E-05	7.17E-04
65	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.13E-11	5.13E-05	5.46E-04
66	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.05E-11	4.05E-05	4.31E-04
67	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.29E-11	3.29E-05	3.51E-04
68	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	2.74E-05	2.91E-04
69	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.31E-11	2.31E-05	2.45E-04
70	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.96E-11	1.96E-05	2.08E-04
71	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.67E-11	2.67E-05	2.85E-04
72	8.3E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.33E-11	3.33E-05	3.55E-04
73	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.35E-11	4.35E-05	4.64E-04
74	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.91E-11	5.91E-05	6.29E-04
75	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.75E-11	8.75E-05	9.31E-04
76	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.50E-10	1.50E-04	1.60E-03
77	6.4E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.55E-10	2.55E-04	2.72E-03
78	5.6E-06	261	1	0.96	0.000001	1.4E-09	1.1	1	14.00	70	0.73	2.24E-10	2.24E-04	2.38E-03
79	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	2.66E-04	2.84E-03
80	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	1.42E-04	1.51E-03
81	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.34E-11	9.34E-05	9.94E-04
82	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.74E-11	6.74E-05	7.18E-04
83	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.12E-11	5.12E-05	5.45E-04
84	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.06E-11	4.06E-05	4.32E-04
85	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.31E-11	3.31E-05	3.52E-04
86	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	2.74E-05	2.92E-04

87	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	2.32E-05	2.47E-04
88	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	1.98E-05	2.11E-04
89	6.5E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.62E-11	2.62E-05	2.79E-04
90	8.1E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.27E-11	3.27E-05	3.48E-04
91	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.28E-11	4.28E-05	4.55E-04
92	1.5E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.84E-11	5.84E-05	6.22E-04
93	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.68E-11	8.68E-05	9.24E-04
94	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.50E-10	1.50E-04	1.59E-03
95	4.1E-06	261	1	0.96	0.000001	1.0E-09	1.1	1	14.00	70	0.73	1.66E-10	1.66E-04	1.77E-03
96	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.30E-11	9.30E-05	9.90E-04
97	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.71E-11	6.71E-05	7.14E-04
98	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.10E-11	5.10E-05	5.43E-04
99	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.06E-11	4.06E-05	4.32E-04
100	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.30E-11	3.30E-05	3.52E-04
101	6.9E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.76E-11	2.76E-05	2.94E-04
102	5.8E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.33E-11	2.33E-05	2.48E-04
103	5.0E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	2.00E-11	2.00E-05	2.13E-04
104	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.54E-11	2.54E-05	2.70E-04
105	7.9E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.17E-11	3.17E-05	3.37E-04
106	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.16E-11	4.16E-05	4.43E-04
107	1.4E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.72E-11	5.72E-05	6.09E-04
108	2.1E-06	261	1	0.96	0.000001	5.3E-10	1.1	1	14.00	70	0.73	8.53E-11	8.53E-05	9.09E-04
109	3.7E-06	261	1	0.96	0.000001	9.2E-10	1.1	1	14.00	70	0.73	1.48E-10	1.48E-04	1.58E-03
110	6.5E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.63E-10	2.63E-04	2.80E-03
111	3.5E-06	261	1	0.96	0.000001	8.7E-10	1.1	1	14.00	70	0.73	1.40E-10	1.40E-04	1.49E-03
112	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.22E-11	9.22E-05	9.82E-04
113	1.7E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.64E-11	6.64E-05	7.07E-04
114	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.06E-11	5.06E-05	5.39E-04
115	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.03E-11	4.03E-05	4.29E-04
116	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.29E-11	3.29E-05	3.51E-04
117	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	2.74E-05	2.92E-04
118	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.33E-11	2.33E-05	2.48E-04
119	5.0E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	2.00E-11	2.00E-05	2.13E-04
120	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	2.44E-05	2.60E-04
121	7.6E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.07E-11	3.07E-05	3.27E-04
122	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.02E-11	4.02E-05	4.28E-04
123	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.55E-11	5.55E-05	5.91E-04
124	6.5E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.61E-10	2.61E-04	2.77E-03
125	3.5E-06	261	1	0.96	0.000001	8.6E-10	1.1	1	14.00	70	0.73	1.39E-10	1.39E-04	1.48E-03
126	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.08E-11	9.08E-05	9.66E-04
127	1.6E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.54E-11	6.54E-05	6.96E-04
128	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	4.94E-11	4.94E-05	5.26E-04
129	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.96E-11	3.96E-05	4.22E-04
130	8.0E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.23E-11	3.23E-05	3.44E-04
131	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.71E-11	2.71E-05	2.88E-04
132	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.30E-11	2.30E-05	2.44E-04

133	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	1.98E-05	2.10E-04
134	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	2.32E-05	2.47E-04
135	7.3E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.93E-11	2.93E-05	3.11E-04
136	9.5E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.81E-11	3.81E-05	4.06E-04
137	1.3E-06	261	1	0.96	0.000001	3.3E-10	1.1	1	14.00	70	0.73	5.33E-11	5.33E-05	5.67E-04
138	2.0E-06	261	1	0.96	0.000001	5.0E-10	1.1	1	14.00	70	0.73	8.05E-11	8.05E-05	8.57E-04
139	3.6E-06	261	1	0.96	0.000001	8.9E-10	1.1	1	14.00	70	0.73	1.43E-10	1.43E-04	1.53E-03
140	6.1E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.46E-10	2.46E-04	2.62E-03
141	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.89E-11	8.89E-05	9.46E-04
142	1.6E-06	261	1	0.96	0.000001	4.0E-10	1.1	1	14.00	70	0.73	6.40E-11	6.40E-05	6.81E-04
143	1.2E-06	261	1	0.96	0.000001	3.0E-10	1.1	1	14.00	70	0.73	4.82E-11	4.82E-05	5.13E-04
144	7.9E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.19E-11	3.19E-05	3.40E-04
145	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.67E-11	2.67E-05	2.85E-04
146	5.6E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.27E-11	2.27E-05	2.41E-04
147	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	1.98E-05	2.10E-04
148	5.4E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.18E-11	2.18E-05	2.32E-04
149	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.72E-11	2.72E-05	2.90E-04
150	8.9E-07	261	1	0.96	0.000001	2.2E-10	1.1	1	14.00	70	0.73	3.59E-11	3.59E-05	3.82E-04
151	1.3E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	5.04E-11	5.04E-05	5.36E-04
152	1.9E-06	261	1	0.96	0.000001	4.8E-10	1.1	1	14.00	70	0.73	7.69E-11	7.69E-05	8.19E-04
153	3.4E-06	261	1	0.96	0.000001	8.5E-10	1.1	1	14.00	70	0.73	1.36E-10	1.36E-04	1.45E-03
154	5.9E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.36E-10	2.36E-04	2.51E-03
155	2.1E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.59E-11	8.59E-05	9.15E-04
156	1.5E-06	261	1	0.96	0.000001	3.9E-10	1.1	1	14.00	70	0.73	6.19E-11	6.19E-05	6.59E-04
157	1.2E-06	261	1	0.96	0.000001	2.9E-10	1.1	1	14.00	70	0.73	4.70E-11	4.70E-05	5.00E-04
158	5.0E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.02E-11	2.02E-05	2.16E-04
159	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.53E-11	2.53E-05	2.69E-04
160	8.3E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.33E-11	3.33E-05	3.54E-04
161	1.2E-06	261	1	0.96	0.000001	2.9E-10	1.1	1	14.00	70	0.73	4.64E-11	4.64E-05	4.94E-04
162	1.8E-06	261	1	0.96	0.000001	4.4E-10	1.1	1	14.00	70	0.73	7.08E-11	7.08E-05	7.53E-04
163	3.2E-06	261	1	0.96	0.000001	8.0E-10	1.1	1	14.00	70	0.73	1.29E-10	1.29E-04	1.37E-03
164	5.6E-06	261	1	0.96	0.000001	1.4E-09	1.1	1	14.00	70	0.73	2.24E-10	2.24E-04	2.39E-03
165	2.0E-06	261	1	0.96	0.000001	5.1E-10	1.1	1	14.00	70	0.73	8.17E-11	8.17E-05	8.70E-04
166	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.91E-11	5.91E-05	6.29E-04
167	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.55E-11	4.55E-05	4.84E-04
168	4.6E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.85E-11	1.85E-05	1.97E-04
169	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.30E-11	2.30E-05	2.45E-04
170	7.4E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	2.98E-11	2.98E-05	3.17E-04
171	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.13E-11	4.13E-05	4.40E-04
172	1.5E-06	261	1	0.96	0.000001	3.9E-10	1.1	1	14.00	70	0.73	6.21E-11	6.21E-05	6.61E-04
173	2.8E-06	261	1	0.96	0.000001	7.0E-10	1.1	1	14.00	70	0.73	1.13E-10	1.13E-04	1.20E-03
174	5.0E-06	261	1	0.96	0.000001	1.3E-09	1.1	1	14.00	70	0.73	2.01E-10	2.01E-04	2.14E-03
175	1.9E-06	261	1	0.96	0.000001	4.7E-10	1.1	1	14.00	70	0.73	7.57E-11	7.57E-05	8.06E-04
176	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.54E-11	5.54E-05	5.90E-04
177	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.31E-11	4.31E-05	4.59E-04
178	4.2E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.67E-11	1.67E-05	1.78E-04

179	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.07E-11	2.07E-05	2.20E-04
180	6.5E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.62E-11	2.62E-05	2.78E-04
181	8.8E-07	261	1	0.96	0.000001	2.2E-10	1.1	1	14.00	70	0.73	3.53E-11	3.53E-05	3.76E-04
182	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.12E-11	5.12E-05	5.46E-04
183	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.71E-11	8.71E-05	9.27E-04
184	2.7E-06	261	1	0.96	0.000001	6.8E-10	1.1	1	14.00	70	0.73	1.09E-10	1.09E-04	1.16E-03
185	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.78E-11	6.78E-05	7.22E-04
186	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.09E-11	5.09E-05	5.42E-04
187	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.02E-11	4.02E-05	4.28E-04
188	3.8E-07	261	1	0.96	0.000001	9.4E-11	1.1	1	14.00	70	0.73	1.51E-11	1.51E-05	1.61E-04
189	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.84E-11	1.84E-05	1.96E-04
190	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.28E-11	2.28E-05	2.42E-04
191	7.4E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.96E-11	2.96E-05	3.15E-04
192	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.00E-11	4.00E-05	4.26E-04
193	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.98E-11	5.98E-05	6.36E-04
194	2.5E-06	261	1	0.96	0.000001	6.2E-10	1.1	1	14.00	70	0.73	1.00E-10	1.00E-04	1.07E-03
195	1.4E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.78E-11	5.78E-05	6.16E-04
196	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.53E-11	4.53E-05	4.82E-04
197	9.2E-07	261	1	0.96	0.000001	2.3E-10	1.1	1	14.00	70	0.73	3.69E-11	3.69E-05	3.92E-04
198	3.4E-07	261	1	0.96	0.000001	8.4E-11	1.1	1	14.00	70	0.73	1.35E-11	1.35E-05	1.43E-04
199	4.0E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.62E-11	1.62E-05	1.73E-04
200	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.93E-11	1.93E-05	2.05E-04
201	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	2.44E-05	2.60E-04
202	7.8E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.13E-11	3.13E-05	3.33E-04
203	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.19E-11	4.19E-05	4.46E-04
204	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.69E-11	5.69E-05	6.05E-04
205	1.2E-06	261	1	0.96	0.000001	3.0E-10	1.1	1	14.00	70	0.73	4.76E-11	4.76E-05	5.07E-04
206	9.8E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.94E-11	3.94E-05	4.19E-04
207	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.31E-11	3.31E-05	3.52E-04
208	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.92E-11	1.92E-05	2.05E-04
209	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	1.71E-05	1.82E-04
210	3.0E-07	261	1	0.96	0.000001	7.6E-11	1.1	1	14.00	70	0.73	1.22E-11	1.22E-05	1.29E-04
211	3.5E-07	261	1	0.96	0.000001	8.8E-11	1.1	1	14.00	70	0.73	1.42E-11	1.42E-05	1.51E-04
212	4.2E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.68E-11	1.68E-05	1.78E-04
213	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.05E-11	2.05E-05	2.18E-04
214	6.2E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.51E-11	2.51E-05	2.67E-04
215	7.8E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.13E-11	3.13E-05	3.33E-04
216	9.6E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.86E-11	3.86E-05	4.11E-04
217	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.51E-11	2.51E-05	2.68E-04
218	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.29E-11	2.29E-05	2.44E-04
219	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.04E-11	2.04E-05	2.17E-04
220	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.84E-11	1.84E-05	1.96E-04
221	4.1E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.64E-11	1.64E-05	1.74E-04
222	2.7E-07	261	1	0.96	0.000001	6.7E-11	1.1	1	14.00	70	0.73	1.08E-11	1.08E-05	1.15E-04
223	3.1E-07	261	1	0.96	0.000001	7.8E-11	1.1	1	14.00	70	0.73	1.25E-11	1.25E-05	1.33E-04
224	3.6E-07	261	1	0.96	0.000001	9.0E-11	1.1	1	14.00	70	0.73	1.45E-11	1.45E-05	1.54E-04

225	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.73E-11	1.73E-05	1.84E-04
226	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.05E-11	2.05E-05	2.18E-04
227	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	2.44E-05	2.60E-04
228	7.1E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.87E-11	2.87E-05	3.06E-04
229	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.52E-11	2.52E-05	2.69E-04
230	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	2.32E-05	2.46E-04
231	5.2E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.08E-11	2.08E-05	2.22E-04
232	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.88E-11	1.88E-05	2.00E-04
233	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	1.71E-05	1.82E-04
234	3.8E-07	261	1	0.96	0.000001	9.6E-11	1.1	1	14.00	70	0.73	1.54E-11	1.54E-05	1.64E-04
235	2.4E-07	261	1	0.96	0.000001	6.1E-11	1.1	1	14.00	70	0.73	9.83E-12	9.83E-06	1.05E-04
236	2.8E-07	261	1	0.96	0.000001	6.9E-11	1.1	1	14.00	70	0.73	1.11E-11	1.11E-05	1.19E-04
237	3.2E-07	261	1	0.96	0.000001	7.9E-11	1.1	1	14.00	70	0.73	1.28E-11	1.28E-05	1.36E-04
238	3.7E-07	261	1	0.96	0.000001	9.2E-11	1.1	1	14.00	70	0.73	1.47E-11	1.47E-05	1.57E-04
239	4.2E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	1.71E-05	1.82E-04
240	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	1.98E-05	2.11E-04
241	5.6E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.26E-11	2.26E-05	2.41E-04
242	5.5E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.21E-11	2.21E-05	2.35E-04
243	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.06E-11	2.06E-05	2.20E-04
244	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.89E-11	1.89E-05	2.01E-04
245	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.73E-11	1.73E-05	1.84E-04
246	3.9E-07	261	1	0.96	0.000001	9.8E-11	1.1	1	14.00	70	0.73	1.57E-11	1.57E-05	1.67E-04
247	3.6E-07	261	1	0.96	0.000001	8.9E-11	1.1	1	14.00	70	0.73	1.44E-11	1.44E-05	1.53E-04
248	2.2E-07	261	1	0.96	0.000001	5.5E-11	1.1	1	14.00	70	0.73	8.83E-12	8.83E-06	9.40E-05
249	2.5E-07	261	1	0.96	0.000001	6.2E-11	1.1	1	14.00	70	0.73	9.94E-12	9.94E-06	1.06E-04
250	2.8E-07	261	1	0.96	0.000001	7.0E-11	1.1	1	14.00	70	0.73	1.12E-11	1.12E-05	1.20E-04
251	3.2E-07	261	1	0.96	0.000001	8.0E-11	1.1	1	14.00	70	0.73	1.28E-11	1.28E-05	1.36E-04
252	3.6E-07	261	1	0.96	0.000001	9.1E-11	1.1	1	14.00	70	0.73	1.46E-11	1.46E-05	1.55E-04
253	4.1E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.66E-11	1.66E-05	1.77E-04
254	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.85E-11	1.85E-05	1.97E-04
255	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.94E-11	1.94E-05	2.06E-04
256	4.5E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.82E-11	1.82E-05	1.94E-04
257	4.2E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.69E-11	1.69E-05	1.80E-04
258	3.9E-07	261	1	0.96	0.000001	9.8E-11	1.1	1	14.00	70	0.73	1.57E-11	1.57E-05	1.67E-04
259	3.6E-07	261	1	0.96	0.000001	9.0E-11	1.1	1	14.00	70	0.73	1.45E-11	1.45E-05	1.55E-04
260	3.4E-07	261	1	0.96	0.000001	8.4E-11	1.1	1	14.00	70	0.73	1.35E-11	1.35E-05	1.44E-04

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	
1	7.84959	9.80E-07	7.7E-06	261	1	0.96	0.000001	1.9E-09	1.1	1	14.00	70	0.73	3.09E-10	0.0003	**Max**
2	0.69414	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.73E-11	0.0000	3.5E-04
3	0.86553	9.80E-07	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.41E-11	0.0000	
4	1.11603	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.40E-11	0.0000	**Max Rec**
5	1.51095	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.95E-11	0.0001	60
6	2.21555	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.73E-11	0.0001	
7	3.79059	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.49E-10	0.0001	
8	6.48208	9.80E-07	6.4E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.55E-10	0.0003	
9	6.73877	9.80E-07	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.65E-10	0.0003	
10	3.57953	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.41E-10	0.0001	
11	2.33142	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.18E-11	0.0001	
12	1.66785	9.80E-07	1.6E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.57E-11	0.0001	
13	1.25295	9.80E-07	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	4.94E-11	0.0000	
14	0.98622	9.80E-07	9.7E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.88E-11	0.0000	
15	0.79583	9.80E-07	7.8E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.13E-11	0.0000	
16	0.6542	9.80E-07	6.4E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.58E-11	0.0000	
17	0.54686	9.80E-07	5.4E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.15E-11	0.0000	
18	0.4635	9.80E-07	4.5E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.83E-11	0.0000	
19	0.69573	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	0.0000	
20	0.87053	9.80E-07	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.43E-11	0.0000	
21	1.12301	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.42E-11	0.0000	
22	1.52072	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.99E-11	0.0001	
23	2.22741	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.77E-11	0.0001	
24	3.80918	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.50E-10	0.0002	
25	6.32106	9.80E-07	6.2E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.49E-10	0.0002	
26	6.75904	9.80E-07	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	0.0003	
27	3.59725	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	0.0001	
28	2.35412	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.27E-11	0.0001	
29	1.68913	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.65E-11	0.0001	
30	1.27097	9.80E-07	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	5.01E-11	0.0001	
31	1.00827	9.80E-07	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.97E-11	0.0000	
32	0.81413	9.80E-07	8.0E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.21E-11	0.0000	
33	0.67105	9.80E-07	6.6E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.64E-11	0.0000	
34	0.56219	9.80E-07	5.5E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.21E-11	0.0000	
35	0.47522	9.80E-07	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.87E-11	0.0000	
36	0.69439	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	0.0000	
37	0.86955	9.80E-07	8.5E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.43E-11	0.0000	
38	1.12362	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.43E-11	0.0000	
39	1.52262	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	6.00E-11	0.0001	
40	2.23299	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.80E-11	0.0001	

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
41	3.81963	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.50E-10	0.0002
42	6.26441	9.80E-07	6.1E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.47E-10	0.0002
43	6.74591	9.80E-07	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	0.0003
44	3.60774	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	0.0001
45	2.36716	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.32E-11	0.0001
46	1.70293	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.71E-11	0.0001
47	1.28624	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.07E-11	0.0001
48	1.02186	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.03E-11	0.0000
49	0.82742	9.80E-07	8.1E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.26E-11	0.0000
50	0.68629	9.80E-07	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.70E-11	0.0000
51	0.57661	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.27E-11	0.0000
52	0.48842	9.80E-07	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.92E-11	0.0000
53	0.68646	9.80E-07	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.70E-11	0.0000
54	0.86138	9.80E-07	8.4E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.39E-11	0.0000
55	1.11682	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.40E-11	0.0000
56	1.51719	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.98E-11	0.0001
57	2.23059	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.79E-11	0.0001
58	3.82205	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.51E-10	0.0002
59	6.31595	9.80E-07	6.2E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.49E-10	0.0002
60	8.82797	9.80E-07	8.7E-06	261	1	0.96	0.000001	2.2E-09	1.1	1	14.00	70	0.73	3.48E-10	0.0003
61	6.73578	9.80E-07	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.65E-10	0.0003
62	3.60825	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.9E-10	1.1	1	14.00	70	0.73	1.42E-10	0.0001
63	2.37153	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.34E-11	0.0001
64	1.70978	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.74E-11	0.0001
65	1.30175	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.13E-11	0.0001
66	1.0279	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.05E-11	0.0000
67	0.83591	9.80E-07	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.29E-11	0.0000
68	0.69492	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	0.0000
69	0.58533	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.31E-11	0.0000
70	0.49654	9.80E-07	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.96E-11	0.0000
71	0.67902	9.80E-07	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.67E-11	0.0000
72	0.84614	9.80E-07	8.3E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.33E-11	0.0000
73	1.10552	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.35E-11	0.0000
74	1.50081	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.91E-11	0.0001
75	2.22069	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.75E-11	0.0001
76	3.81377	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.4E-10	1.1	1	14.00	70	0.73	1.50E-10	0.0002
77	6.48226	9.80E-07	6.4E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.55E-10	0.0003
78	5.68136	9.80E-07	5.6E-06	261	1	0.96	0.000001	1.4E-09	1.1	1	14.00	70	0.73	2.24E-10	0.0002
79	6.76219	9.80E-07	6.6E-06	261	1	0.96	0.000001	1.7E-09	1.1	1	14.00	70	0.73	2.66E-10	0.0003
80	3.60463	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.8E-10	1.1	1	14.00	70	0.73	1.42E-10	0.0001

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
81	2.37028	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.34E-11	0.0001
82	1.7119	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.74E-11	0.0001
83	1.30055	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.12E-11	0.0001
84	1.03078	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.06E-11	0.0000
85	0.83978	9.80E-07	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.31E-11	0.0000
86	0.69672	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	0.0000
87	0.59019	9.80E-07	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	0.0000
88	0.50207	9.80E-07	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	0.0000
89	0.66433	9.80E-07	6.5E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.62E-11	0.0000
90	0.8307	9.80E-07	8.1E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.27E-11	0.0000
91	1.08526	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.28E-11	0.0000
92	1.48258	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.84E-11	0.0001
93	2.20304	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.68E-11	0.0001
94	3.79931	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.3E-10	1.1	1	14.00	70	0.73	1.50E-10	0.0001
95	4.20947	9.80E-07	4.1E-06	261	1	0.96	0.000001	1.0E-09	1.1	1	14.00	70	0.73	1.66E-10	0.0002
96	2.36021	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.8E-10	1.1	1	14.00	70	0.73	9.30E-11	0.0001
97	1.70221	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.71E-11	0.0001
98	1.29401	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.10E-11	0.0001
99	1.03049	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.06E-11	0.0000
100	0.83891	9.80E-07	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.30E-11	0.0000
101	0.70013	9.80E-07	6.9E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.76E-11	0.0000
102	0.59205	9.80E-07	5.8E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.33E-11	0.0000
103	0.50685	9.80E-07	5.0E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	2.00E-11	0.0000
104	0.64484	9.80E-07	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.54E-11	0.0000
105	0.80397	9.80E-07	7.9E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.17E-11	0.0000
106	1.05582	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.16E-11	0.0000
107	1.45291	9.80E-07	1.4E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.72E-11	0.0001
108	2.16666	9.80E-07	2.1E-06	261	1	0.96	0.000001	5.3E-10	1.1	1	14.00	70	0.73	8.53E-11	0.0001
109	3.76891	9.80E-07	3.7E-06	261	1	0.96	0.000001	9.2E-10	1.1	1	14.00	70	0.73	1.48E-10	0.0001
110	6.68034	9.80E-07	6.5E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.63E-10	0.0003
111	3.56428	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.7E-10	1.1	1	14.00	70	0.73	1.40E-10	0.0001
112	2.34093	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.22E-11	0.0001
113	1.68604	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.64E-11	0.0001
114	1.2844	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.06E-11	0.0001
115	1.02204	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.03E-11	0.0000
116	0.83609	9.80E-07	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.29E-11	0.0000
117	0.69659	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.74E-11	0.0000
118	0.59035	9.80E-07	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.33E-11	0.0000
119	0.50692	9.80E-07	5.0E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	2.00E-11	0.0000
120	0.62015	9.80E-07	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	0.0000

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
121	0.77991	9.80E-07	7.6E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.07E-11	0.0000
122	1.01976	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.02E-11	0.0000
123	1.40884	9.80E-07	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.55E-11	0.0001
124	6.6152	9.80E-07	6.5E-06	261	1	0.96	0.000001	1.6E-09	1.1	1	14.00	70	0.73	2.61E-10	0.0003
125	3.52497	9.80E-07	3.5E-06	261	1	0.96	0.000001	8.6E-10	1.1	1	14.00	70	0.73	1.39E-10	0.0001
126	2.30408	9.80E-07	2.3E-06	261	1	0.96	0.000001	5.7E-10	1.1	1	14.00	70	0.73	9.08E-11	0.0001
127	1.65956	9.80E-07	1.6E-06	261	1	0.96	0.000001	4.1E-10	1.1	1	14.00	70	0.73	6.54E-11	0.0001
128	1.25485	9.80E-07	1.2E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	4.94E-11	0.0000
129	1.00531	9.80E-07	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.96E-11	0.0000
130	0.8207	9.80E-07	8.0E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.23E-11	0.0000
131	0.68673	9.80E-07	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.71E-11	0.0000
132	0.58293	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.30E-11	0.0000
133	0.50163	9.80E-07	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	0.0000
134	0.5881	9.80E-07	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	0.0000
135	0.74269	9.80E-07	7.3E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.93E-11	0.0000
136	0.96714	9.80E-07	9.5E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.81E-11	0.0000
137	1.35288	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.3E-10	1.1	1	14.00	70	0.73	5.33E-11	0.0001
138	2.04278	9.80E-07	2.0E-06	261	1	0.96	0.000001	5.0E-10	1.1	1	14.00	70	0.73	8.05E-11	0.0001
139	3.64077	9.80E-07	3.6E-06	261	1	0.96	0.000001	8.9E-10	1.1	1	14.00	70	0.73	1.43E-10	0.0001
140	6.24071	9.80E-07	6.1E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.46E-10	0.0002
141	2.2556	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.5E-10	1.1	1	14.00	70	0.73	8.89E-11	0.0001
142	1.62462	9.80E-07	1.6E-06	261	1	0.96	0.000001	4.0E-10	1.1	1	14.00	70	0.73	6.40E-11	0.0001
143	1.22391	9.80E-07	1.2E-06	261	1	0.96	0.000001	3.0E-10	1.1	1	14.00	70	0.73	4.82E-11	0.0000
144	0.8106	9.80E-07	7.9E-07	261	1	0.96	0.000001	2.0E-10	1.1	1	14.00	70	0.73	3.19E-11	0.0000
145	0.67887	9.80E-07	6.7E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.67E-11	0.0000
146	0.57564	9.80E-07	5.6E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.27E-11	0.0000
147	0.5017	9.80E-07	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	0.0000
148	0.55379	9.80E-07	5.4E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.18E-11	0.0000
149	0.69145	9.80E-07	6.8E-07	261	1	0.96	0.000001	1.7E-10	1.1	1	14.00	70	0.73	2.72E-11	0.0000
150	0.9103	9.80E-07	8.9E-07	261	1	0.96	0.000001	2.2E-10	1.1	1	14.00	70	0.73	3.59E-11	0.0000
151	1.27858	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.1E-10	1.1	1	14.00	70	0.73	5.04E-11	0.0001
152	1.95251	9.80E-07	1.9E-06	261	1	0.96	0.000001	4.8E-10	1.1	1	14.00	70	0.73	7.69E-11	0.0001
153	3.45638	9.80E-07	3.4E-06	261	1	0.96	0.000001	8.5E-10	1.1	1	14.00	70	0.73	1.36E-10	0.0001
154	5.97837	9.80E-07	5.9E-06	261	1	0.96	0.000001	1.5E-09	1.1	1	14.00	70	0.73	2.36E-10	0.0002
155	2.18131	9.80E-07	2.1E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.59E-11	0.0001
156	1.57102	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.9E-10	1.1	1	14.00	70	0.73	6.19E-11	0.0001
157	1.193	9.80E-07	1.2E-06	261	1	0.96	0.000001	2.9E-10	1.1	1	14.00	70	0.73	4.70E-11	0.0000
158	0.514	9.80E-07	5.0E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.02E-11	0.0000
159	0.64174	9.80E-07	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.53E-11	0.0000
160	0.84434	9.80E-07	8.3E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.33E-11	0.0000

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
161	1.17856	9.80E-07	1.2E-06	261	1	0.96	0.000001	2.9E-10	1.1	1	14.00	70	0.73	4.64E-11	0.0000
162	1.79658	9.80E-07	1.8E-06	261	1	0.96	0.000001	4.4E-10	1.1	1	14.00	70	0.73	7.08E-11	0.0001
163	3.27633	9.80E-07	3.2E-06	261	1	0.96	0.000001	8.0E-10	1.1	1	14.00	70	0.73	1.29E-10	0.0001
164	5.69488	9.80E-07	5.6E-06	261	1	0.96	0.000001	1.4E-09	1.1	1	14.00	70	0.73	2.24E-10	0.0002
165	2.07373	9.80E-07	2.0E-06	261	1	0.96	0.000001	5.1E-10	1.1	1	14.00	70	0.73	8.17E-11	0.0001
166	1.49941	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.91E-11	0.0001
167	1.15459	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.55E-11	0.0000
168	0.47033	9.80E-07	4.6E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.85E-11	0.0000
169	0.58361	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.30E-11	0.0000
170	0.75719	9.80E-07	7.4E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	2.98E-11	0.0000
171	1.04858	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.13E-11	0.0000
172	1.57522	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.9E-10	1.1	1	14.00	70	0.73	6.21E-11	0.0001
173	2.86966	9.80E-07	2.8E-06	261	1	0.96	0.000001	7.0E-10	1.1	1	14.00	70	0.73	1.13E-10	0.0001
174	5.10895	9.80E-07	5.0E-06	261	1	0.96	0.000001	1.3E-09	1.1	1	14.00	70	0.73	2.01E-10	0.0002
175	1.92231	9.80E-07	1.9E-06	261	1	0.96	0.000001	4.7E-10	1.1	1	14.00	70	0.73	7.57E-11	0.0001
176	1.40708	9.80E-07	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.54E-11	0.0001
177	1.09413	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.7E-10	1.1	1	14.00	70	0.73	4.31E-11	0.0000
178	0.4249	9.80E-07	4.2E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.67E-11	0.0000
179	0.52518	9.80E-07	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.07E-11	0.0000
180	0.66387	9.80E-07	6.5E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.62E-11	0.0000
181	0.89629	9.80E-07	8.8E-07	261	1	0.96	0.000001	2.2E-10	1.1	1	14.00	70	0.73	3.53E-11	0.0000
182	1.30098	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.12E-11	0.0001
183	2.21134	9.80E-07	2.2E-06	261	1	0.96	0.000001	5.4E-10	1.1	1	14.00	70	0.73	8.71E-11	0.0001
184	2.7708	9.80E-07	2.7E-06	261	1	0.96	0.000001	6.8E-10	1.1	1	14.00	70	0.73	1.09E-10	0.0001
185	1.721	9.80E-07	1.7E-06	261	1	0.96	0.000001	4.2E-10	1.1	1	14.00	70	0.73	6.78E-11	0.0001
186	1.29162	9.80E-07	1.3E-06	261	1	0.96	0.000001	3.2E-10	1.1	1	14.00	70	0.73	5.09E-11	0.0001
187	1.02155	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.02E-11	0.0000
188	0.38306	9.80E-07	3.8E-07	261	1	0.96	0.000001	9.4E-11	1.1	1	14.00	70	0.73	1.51E-11	0.0000
189	0.46684	9.80E-07	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.84E-11	0.0000
190	0.5779	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.28E-11	0.0000
191	0.75128	9.80E-07	7.4E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.96E-11	0.0000
192	1.01513	9.80E-07	9.9E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	4.00E-11	0.0000
193	1.5177	9.80E-07	1.5E-06	261	1	0.96	0.000001	3.7E-10	1.1	1	14.00	70	0.73	5.98E-11	0.0001
194	2.54345	9.80E-07	2.5E-06	261	1	0.96	0.000001	6.2E-10	1.1	1	14.00	70	0.73	1.00E-10	0.0001
195	1.46828	9.80E-07	1.4E-06	261	1	0.96	0.000001	3.6E-10	1.1	1	14.00	70	0.73	5.78E-11	0.0001
196	1.15024	9.80E-07	1.1E-06	261	1	0.96	0.000001	2.8E-10	1.1	1	14.00	70	0.73	4.53E-11	0.0000
197	0.9359	9.80E-07	9.2E-07	261	1	0.96	0.000001	2.3E-10	1.1	1	14.00	70	0.73	3.69E-11	0.0000
198	0.34196	9.80E-07	3.4E-07	261	1	0.96	0.000001	8.4E-11	1.1	1	14.00	70	0.73	1.35E-11	0.0000
199	0.41148	9.80E-07	4.0E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.62E-11	0.0000
200	0.4889	9.80E-07	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.93E-11	0.0000

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
201	0.61981	9.80E-07	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	0.0000
202	0.79441	9.80E-07	7.8E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.13E-11	0.0000
203	1.06251	9.80E-07	1.0E-06	261	1	0.96	0.000001	2.6E-10	1.1	1	14.00	70	0.73	4.19E-11	0.0000
204	1.44346	9.80E-07	1.4E-06	261	1	0.96	0.000001	3.5E-10	1.1	1	14.00	70	0.73	5.69E-11	0.0001
205	1.20838	9.80E-07	1.2E-06	261	1	0.96	0.000001	3.0E-10	1.1	1	14.00	70	0.73	4.76E-11	0.0000
206	1.00007	9.80E-07	9.8E-07	261	1	0.96	0.000001	2.5E-10	1.1	1	14.00	70	0.73	3.94E-11	0.0000
207	0.84039	9.80E-07	8.2E-07	261	1	0.96	0.000001	2.1E-10	1.1	1	14.00	70	0.73	3.31E-11	0.0000
208	0.48794	9.80E-07	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.92E-11	0.0000
209	0.43479	9.80E-07	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	0.0000
210	0.30866	9.80E-07	3.0E-07	261	1	0.96	0.000001	7.6E-11	1.1	1	14.00	70	0.73	1.22E-11	0.0000
211	0.36033	9.80E-07	3.5E-07	261	1	0.96	0.000001	8.8E-11	1.1	1	14.00	70	0.73	1.42E-11	0.0000
212	0.42556	9.80E-07	4.2E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.68E-11	0.0000
213	0.51943	9.80E-07	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.05E-11	0.0000
214	0.63723	9.80E-07	6.2E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.51E-11	0.0000
215	0.79377	9.80E-07	7.8E-07	261	1	0.96	0.000001	1.9E-10	1.1	1	14.00	70	0.73	3.13E-11	0.0000
216	0.98061	9.80E-07	9.6E-07	261	1	0.96	0.000001	2.4E-10	1.1	1	14.00	70	0.73	3.86E-11	0.0000
217	0.63803	9.80E-07	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.51E-11	0.0000
218	0.58252	9.80E-07	5.7E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.29E-11	0.0000
219	0.51714	9.80E-07	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.04E-11	0.0000
220	0.46637	9.80E-07	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.84E-11	0.0000
221	0.41613	9.80E-07	4.1E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.64E-11	0.0000
222	0.27487	9.80E-07	2.7E-07	261	1	0.96	0.000001	6.7E-11	1.1	1	14.00	70	0.73	1.08E-11	0.0000
223	0.31609	9.80E-07	3.1E-07	261	1	0.96	0.000001	7.8E-11	1.1	1	14.00	70	0.73	1.25E-11	0.0000
224	0.36696	9.80E-07	3.6E-07	261	1	0.96	0.000001	9.0E-11	1.1	1	14.00	70	0.73	1.45E-11	0.0000
225	0.43823	9.80E-07	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.73E-11	0.0000
226	0.51931	9.80E-07	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.05E-11	0.0000
227	0.6198	9.80E-07	6.1E-07	261	1	0.96	0.000001	1.5E-10	1.1	1	14.00	70	0.73	2.44E-11	0.0000
228	0.72917	9.80E-07	7.1E-07	261	1	0.96	0.000001	1.8E-10	1.1	1	14.00	70	0.73	2.87E-11	0.0000
229	0.64059	9.80E-07	6.3E-07	261	1	0.96	0.000001	1.6E-10	1.1	1	14.00	70	0.73	2.52E-11	0.0000
230	0.58777	9.80E-07	5.8E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.32E-11	0.0000
231	0.52861	9.80E-07	5.2E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.08E-11	0.0000
232	0.47676	9.80E-07	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.88E-11	0.0000
233	0.43438	9.80E-07	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	0.0000
234	0.39099	9.80E-07	3.8E-07	261	1	0.96	0.000001	9.6E-11	1.1	1	14.00	70	0.73	1.54E-11	0.0000
235	0.24964	9.80E-07	2.4E-07	261	1	0.96	0.000001	6.1E-11	1.1	1	14.00	70	0.73	9.83E-12	0.0000
236	0.2828	9.80E-07	2.8E-07	261	1	0.96	0.000001	6.9E-11	1.1	1	14.00	70	0.73	1.11E-11	0.0000
237	0.32399	9.80E-07	3.2E-07	261	1	0.96	0.000001	7.9E-11	1.1	1	14.00	70	0.73	1.28E-11	0.0000
238	0.37417	9.80E-07	3.7E-07	261	1	0.96	0.000001	9.2E-11	1.1	1	14.00	70	0.73	1.47E-11	0.0000
239	0.43292	9.80E-07	4.2E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.71E-11	0.0000
240	0.50275	9.80E-07	4.9E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.98E-11	0.0000

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors >16 years of age

Receptor #	Conc	g/sec	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)
241	0.5739	9.80E-07	5.6E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.26E-11	0.0000
242	0.56117	9.80E-07	5.5E-07	261	1	0.96	0.000001	1.4E-10	1.1	1	14.00	70	0.73	2.21E-11	0.0000
243	0.52384	9.80E-07	5.1E-07	261	1	0.96	0.000001	1.3E-10	1.1	1	14.00	70	0.73	2.06E-11	0.0000
244	0.47962	9.80E-07	4.7E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.89E-11	0.0000
245	0.43842	9.80E-07	4.3E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.73E-11	0.0000
246	0.39818	9.80E-07	3.9E-07	261	1	0.96	0.000001	9.8E-11	1.1	1	14.00	70	0.73	1.57E-11	0.0000
247	0.36472	9.80E-07	3.6E-07	261	1	0.96	0.000001	8.9E-11	1.1	1	14.00	70	0.73	1.44E-11	0.0000
248	0.22412	9.80E-07	2.2E-07	261	1	0.96	0.000001	5.5E-11	1.1	1	14.00	70	0.73	8.83E-12	0.0000
249	0.25227	9.80E-07	2.5E-07	261	1	0.96	0.000001	6.2E-11	1.1	1	14.00	70	0.73	9.94E-12	0.0000
250	0.28514	9.80E-07	2.8E-07	261	1	0.96	0.000001	7.0E-11	1.1	1	14.00	70	0.73	1.12E-11	0.0000
251	0.32492	9.80E-07	3.2E-07	261	1	0.96	0.000001	8.0E-11	1.1	1	14.00	70	0.73	1.28E-11	0.0000
252	0.37033	9.80E-07	3.6E-07	261	1	0.96	0.000001	9.1E-11	1.1	1	14.00	70	0.73	1.46E-11	0.0000
253	0.42191	9.80E-07	4.1E-07	261	1	0.96	0.000001	1.0E-10	1.1	1	14.00	70	0.73	1.66E-11	0.0000
254	0.46865	9.80E-07	4.6E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.85E-11	0.0000
255	0.49239	9.80E-07	4.8E-07	261	1	0.96	0.000001	1.2E-10	1.1	1	14.00	70	0.73	1.94E-11	0.0000
256	0.46206	9.80E-07	4.5E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.82E-11	0.0000
257	0.42952	9.80E-07	4.2E-07	261	1	0.96	0.000001	1.1E-10	1.1	1	14.00	70	0.73	1.69E-11	0.0000
258	0.3982	9.80E-07	3.9E-07	261	1	0.96	0.000001	9.8E-11	1.1	1	14.00	70	0.73	1.57E-11	0.0000
259	0.36865	9.80E-07	3.6E-07	261	1	0.96	0.000001	9.0E-11	1.1	1	14.00	70	0.73	1.45E-11	0.0000
260	0.34261	9.80E-07	3.4E-07	261	1	0.96	0.000001	8.4E-11	1.1	1	14.00	70	0.73	1.35E-11	0.0000

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)		Total Risk	
1	7.7E-06	631	1	0.96	0.000001	4.7E-09	1.1	3	13.59	70	1	2.98E-09	2.98E-03	**Max**	3.29E-03	**Max**
2	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	2.64E-04	3.4E-03	2.91E-04	0.00
3	8.5E-07	631	1	0.96	0.000001	5.1E-10	1.1	3	13.59	70	1	3.29E-10	3.29E-04		3.63E-04	
4	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.24E-10	4.24E-04	**Max Rec**	4.68E-04	**Max Rec**
5	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.74E-10	5.74E-04	60	6.34E-04	60
6	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.42E-10	8.42E-04		9.29E-04	
7	3.7E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.44E-09	1.44E-03		1.59E-03	
8	6.4E-06	631	1	0.96	0.000001	3.8E-09	1.1	3	13.59	70	1	2.46E-09	2.46E-03		2.72E-03	
9	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	2.56E-03		2.83E-03	
10	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.36E-09	1.36E-03		1.50E-03	
11	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.86E-10	8.86E-04		9.78E-04	
12	1.6E-06	631	1	0.96	0.000001	9.9E-10	1.1	3	13.59	70	1	6.34E-10	6.34E-04		6.99E-04	
13	1.2E-06	631	1	0.96	0.000001	7.4E-10	1.1	3	13.59	70	1	4.76E-10	4.76E-04		5.25E-04	
14	9.7E-07	631	1	0.96	0.000001	5.8E-10	1.1	3	13.59	70	1	3.75E-10	3.75E-04		4.14E-04	
15	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	3.02E-04		3.34E-04	
16	6.4E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.49E-10	2.49E-04		2.74E-04	
17	5.4E-07	631	1	0.96	0.000001	3.2E-10	1.1	3	13.59	70	1	2.08E-10	2.08E-04		2.29E-04	
18	4.5E-07	631	1	0.96	0.000001	2.7E-10	1.1	3	13.59	70	1	1.76E-10	1.76E-04		1.94E-04	
19	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	2.64E-04		2.92E-04	
20	8.5E-07	631	1	0.96	0.000001	5.2E-10	1.1	3	13.59	70	1	3.31E-10	3.31E-04		3.65E-04	
21	1.1E-06	631	1	0.96	0.000001	6.7E-10	1.1	3	13.59	70	1	4.27E-10	4.27E-04		4.71E-04	
22	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.78E-10	5.78E-04		6.38E-04	
23	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.46E-10	8.46E-04		9.34E-04	
24	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	1.45E-03		1.60E-03	
25	6.2E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.40E-09	2.40E-03		2.65E-03	
26	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.57E-09	2.57E-03		2.83E-03	
27	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	1.37E-03		1.51E-03	
28	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.94E-10	8.94E-04		9.87E-04	
29	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.42E-10	6.42E-04		7.08E-04	
30	1.2E-06	631	1	0.96	0.000001	7.5E-10	1.1	3	13.59	70	1	4.83E-10	4.83E-04		5.33E-04	
31	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.83E-10	3.83E-04		4.23E-04	
32	8.0E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.09E-10	3.09E-04		3.41E-04	
33	6.6E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.55E-10	2.55E-04		2.81E-04	
34	5.5E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.14E-10	2.14E-04		2.36E-04	
35	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.81E-10	1.81E-04		1.99E-04	
36	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	2.64E-04		2.91E-04	
37	8.5E-07	631	1	0.96	0.000001	5.2E-10	1.1	3	13.59	70	1	3.30E-10	3.30E-04		3.65E-04	
38	1.1E-06	631	1	0.96	0.000001	6.7E-10	1.1	3	13.59	70	1	4.27E-10	4.27E-04		4.71E-04	
39	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.78E-10	5.78E-04		6.38E-04	
40	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.48E-10	8.48E-04		9.36E-04	

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
41	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	1.45E-03	1.60E-03
42	6.1E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.38E-09	2.38E-03	2.63E-03
43	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	2.56E-03	2.83E-03
44	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	1.37E-03	1.51E-03
45	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.99E-10	8.99E-04	9.93E-04
46	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.47E-10	6.47E-04	7.14E-04
47	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.89E-10	4.89E-04	5.39E-04
48	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	3.88E-04	4.28E-04
49	8.1E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.14E-10	3.14E-04	3.47E-04
50	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	2.61E-04	2.88E-04
51	5.7E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.19E-10	2.19E-04	2.42E-04
52	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.86E-10	1.86E-04	2.05E-04
53	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	2.61E-04	2.88E-04
54	8.4E-07	631	1	0.96	0.000001	5.1E-10	1.1	3	13.59	70	1	3.27E-10	3.27E-04	3.61E-04
55	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.24E-10	4.24E-04	4.68E-04
56	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.76E-10	5.76E-04	6.36E-04
57	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.47E-10	8.47E-04	9.35E-04
58	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	1.45E-03	1.60E-03
59	6.2E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.40E-09	2.40E-03	2.65E-03
60	8.7E-06	631	1	0.96	0.000001	5.2E-09	1.1	3	13.59	70	1	3.35E-09	3.35E-03	3.70E-03
61	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.56E-09	2.56E-03	2.82E-03
62	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	1.37E-03	1.51E-03
63	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	9.01E-10	9.01E-04	9.94E-04
64	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.50E-10	6.50E-04	7.17E-04
65	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.95E-10	4.95E-04	5.46E-04
66	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.91E-10	3.91E-04	4.31E-04
67	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.18E-10	3.18E-04	3.51E-04
68	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.64E-10	2.64E-04	2.91E-04
69	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.22E-10	2.22E-04	2.45E-04
70	4.9E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.89E-10	1.89E-04	2.08E-04
71	6.7E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.58E-10	2.58E-04	2.85E-04
72	8.3E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.21E-10	3.21E-04	3.55E-04
73	1.1E-06	631	1	0.96	0.000001	6.6E-10	1.1	3	13.59	70	1	4.20E-10	4.20E-04	4.64E-04
74	1.5E-06	631	1	0.96	0.000001	8.9E-10	1.1	3	13.59	70	1	5.70E-10	5.70E-04	6.29E-04
75	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.44E-10	8.44E-04	9.31E-04
76	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.45E-09	1.45E-03	1.60E-03
77	6.4E-06	631	1	0.96	0.000001	3.8E-09	1.1	3	13.59	70	1	2.46E-09	2.46E-03	2.72E-03
78	5.6E-06	631	1	0.96	0.000001	3.4E-09	1.1	3	13.59	70	1	2.16E-09	2.16E-03	2.38E-03
79	6.6E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.57E-09	2.57E-03	2.84E-03
80	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.37E-09	1.37E-03	1.51E-03

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
81	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	9.01E-10	9.01E-04	9.94E-04
82	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.50E-10	6.50E-04	7.18E-04
83	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.94E-10	4.94E-04	5.45E-04
84	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.92E-10	3.92E-04	4.32E-04
85	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	3.19E-04	3.52E-04
86	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.65E-10	2.65E-04	2.92E-04
87	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.24E-10	2.24E-04	2.47E-04
88	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	1.91E-04	2.11E-04
89	6.5E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.52E-10	2.52E-04	2.79E-04
90	8.1E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.16E-10	3.16E-04	3.48E-04
91	1.1E-06	631	1	0.96	0.000001	6.4E-10	1.1	3	13.59	70	1	4.12E-10	4.12E-04	4.55E-04
92	1.5E-06	631	1	0.96	0.000001	8.8E-10	1.1	3	13.59	70	1	5.63E-10	5.63E-04	6.22E-04
93	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.37E-10	8.37E-04	9.24E-04
94	3.7E-06	631	1	0.96	0.000001	2.3E-09	1.1	3	13.59	70	1	1.44E-09	1.44E-03	1.59E-03
95	4.1E-06	631	1	0.96	0.000001	2.5E-09	1.1	3	13.59	70	1	1.60E-09	1.60E-03	1.77E-03
96	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.97E-10	8.97E-04	9.90E-04
97	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.47E-10	6.47E-04	7.14E-04
98	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.92E-10	4.92E-04	5.43E-04
99	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.92E-10	3.92E-04	4.32E-04
100	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	3.19E-04	3.52E-04
101	6.9E-07	631	1	0.96	0.000001	4.2E-10	1.1	3	13.59	70	1	2.66E-10	2.66E-04	2.94E-04
102	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.25E-10	2.25E-04	2.48E-04
103	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.93E-10	1.93E-04	2.13E-04
104	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.45E-10	2.45E-04	2.70E-04
105	7.9E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.05E-10	3.05E-04	3.37E-04
106	1.0E-06	631	1	0.96	0.000001	6.3E-10	1.1	3	13.59	70	1	4.01E-10	4.01E-04	4.43E-04
107	1.4E-06	631	1	0.96	0.000001	8.6E-10	1.1	3	13.59	70	1	5.52E-10	5.52E-04	6.09E-04
108	2.1E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.23E-10	8.23E-04	9.09E-04
109	3.7E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.43E-09	1.43E-03	1.58E-03
110	6.5E-06	631	1	0.96	0.000001	4.0E-09	1.1	3	13.59	70	1	2.54E-09	2.54E-03	2.80E-03
111	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.35E-09	1.35E-03	1.49E-03
112	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.89E-10	8.89E-04	9.82E-04
113	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.41E-10	6.41E-04	7.07E-04
114	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.88E-10	4.88E-04	5.39E-04
115	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	3.88E-04	4.29E-04
116	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.18E-10	3.18E-04	3.51E-04
117	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.65E-10	2.65E-04	2.92E-04
118	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.24E-10	2.24E-04	2.48E-04
119	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.93E-10	1.93E-04	2.13E-04
120	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.36E-10	2.36E-04	2.60E-04

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
121	7.6E-07	631	1	0.96	0.000001	4.6E-10	1.1	3	13.59	70	1	2.96E-10	2.96E-04	3.27E-04
122	1.0E-06	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.87E-10	3.87E-04	4.28E-04
123	1.4E-06	631	1	0.96	0.000001	8.4E-10	1.1	3	13.59	70	1	5.35E-10	5.35E-04	5.91E-04
124	6.5E-06	631	1	0.96	0.000001	3.9E-09	1.1	3	13.59	70	1	2.51E-09	2.51E-03	2.77E-03
125	3.5E-06	631	1	0.96	0.000001	2.1E-09	1.1	3	13.59	70	1	1.34E-09	1.34E-03	1.48E-03
126	2.3E-06	631	1	0.96	0.000001	1.4E-09	1.1	3	13.59	70	1	8.75E-10	8.75E-04	9.66E-04
127	1.6E-06	631	1	0.96	0.000001	9.8E-10	1.1	3	13.59	70	1	6.30E-10	6.30E-04	6.96E-04
128	1.2E-06	631	1	0.96	0.000001	7.4E-10	1.1	3	13.59	70	1	4.77E-10	4.77E-04	5.26E-04
129	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.82E-10	3.82E-04	4.22E-04
130	8.0E-07	631	1	0.96	0.000001	4.9E-10	1.1	3	13.59	70	1	3.12E-10	3.12E-04	3.44E-04
131	6.7E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.61E-10	2.61E-04	2.88E-04
132	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.21E-10	2.21E-04	2.44E-04
133	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	1.91E-04	2.10E-04
134	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.23E-10	2.23E-04	2.47E-04
135	7.3E-07	631	1	0.96	0.000001	4.4E-10	1.1	3	13.59	70	1	2.82E-10	2.82E-04	3.11E-04
136	9.5E-07	631	1	0.96	0.000001	5.7E-10	1.1	3	13.59	70	1	3.67E-10	3.67E-04	4.06E-04
137	1.3E-06	631	1	0.96	0.000001	8.0E-10	1.1	3	13.59	70	1	5.14E-10	5.14E-04	5.67E-04
138	2.0E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.76E-10	7.76E-04	8.57E-04
139	3.6E-06	631	1	0.96	0.000001	2.2E-09	1.1	3	13.59	70	1	1.38E-09	1.38E-03	1.53E-03
140	6.1E-06	631	1	0.96	0.000001	3.7E-09	1.1	3	13.59	70	1	2.37E-09	2.37E-03	2.62E-03
141	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.57E-10	8.57E-04	9.46E-04
142	1.6E-06	631	1	0.96	0.000001	9.6E-10	1.1	3	13.59	70	1	6.17E-10	6.17E-04	6.81E-04
143	1.2E-06	631	1	0.96	0.000001	7.3E-10	1.1	3	13.59	70	1	4.65E-10	4.65E-04	5.13E-04
144	7.9E-07	631	1	0.96	0.000001	4.8E-10	1.1	3	13.59	70	1	3.08E-10	3.08E-04	3.40E-04
145	6.7E-07	631	1	0.96	0.000001	4.0E-10	1.1	3	13.59	70	1	2.58E-10	2.58E-04	2.85E-04
146	5.6E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.19E-10	2.19E-04	2.41E-04
147	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	1.91E-04	2.10E-04
148	5.4E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.10E-10	2.10E-04	2.32E-04
149	6.8E-07	631	1	0.96	0.000001	4.1E-10	1.1	3	13.59	70	1	2.63E-10	2.63E-04	2.90E-04
150	8.9E-07	631	1	0.96	0.000001	5.4E-10	1.1	3	13.59	70	1	3.46E-10	3.46E-04	3.82E-04
151	1.3E-06	631	1	0.96	0.000001	7.6E-10	1.1	3	13.59	70	1	4.86E-10	4.86E-04	5.36E-04
152	1.9E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.42E-10	7.42E-04	8.19E-04
153	3.4E-06	631	1	0.96	0.000001	2.0E-09	1.1	3	13.59	70	1	1.31E-09	1.31E-03	1.45E-03
154	5.9E-06	631	1	0.96	0.000001	3.5E-09	1.1	3	13.59	70	1	2.27E-09	2.27E-03	2.51E-03
155	2.1E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.29E-10	8.29E-04	9.15E-04
156	1.5E-06	631	1	0.96	0.000001	9.3E-10	1.1	3	13.59	70	1	5.97E-10	5.97E-04	6.59E-04
157	1.2E-06	631	1	0.96	0.000001	7.1E-10	1.1	3	13.59	70	1	4.53E-10	4.53E-04	5.00E-04
158	5.0E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.95E-10	1.95E-04	2.16E-04
159	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.44E-10	2.44E-04	2.69E-04
160	8.3E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.21E-10	3.21E-04	3.54E-04

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
161	1.2E-06	631	1	0.96	0.000001	7.0E-10	1.1	3	13.59	70	1	4.48E-10	4.48E-04	4.94E-04
162	1.8E-06	631	1	0.96	0.000001	1.1E-09	1.1	3	13.59	70	1	6.83E-10	6.83E-04	7.53E-04
163	3.2E-06	631	1	0.96	0.000001	1.9E-09	1.1	3	13.59	70	1	1.24E-09	1.24E-03	1.37E-03
164	5.6E-06	631	1	0.96	0.000001	3.4E-09	1.1	3	13.59	70	1	2.16E-09	2.16E-03	2.39E-03
165	2.0E-06	631	1	0.96	0.000001	1.2E-09	1.1	3	13.59	70	1	7.88E-10	7.88E-04	8.70E-04
166	1.5E-06	631	1	0.96	0.000001	8.9E-10	1.1	3	13.59	70	1	5.70E-10	5.70E-04	6.29E-04
167	1.1E-06	631	1	0.96	0.000001	6.8E-10	1.1	3	13.59	70	1	4.39E-10	4.39E-04	4.84E-04
168	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.79E-10	1.79E-04	1.97E-04
169	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.22E-10	2.22E-04	2.45E-04
170	7.4E-07	631	1	0.96	0.000001	4.5E-10	1.1	3	13.59	70	1	2.88E-10	2.88E-04	3.17E-04
171	1.0E-06	631	1	0.96	0.000001	6.2E-10	1.1	3	13.59	70	1	3.98E-10	3.98E-04	4.40E-04
172	1.5E-06	631	1	0.96	0.000001	9.3E-10	1.1	3	13.59	70	1	5.98E-10	5.98E-04	6.61E-04
173	2.8E-06	631	1	0.96	0.000001	1.7E-09	1.1	3	13.59	70	1	1.09E-09	1.09E-03	1.20E-03
174	5.0E-06	631	1	0.96	0.000001	3.0E-09	1.1	3	13.59	70	1	1.94E-09	1.94E-03	2.14E-03
175	1.9E-06	631	1	0.96	0.000001	1.1E-09	1.1	3	13.59	70	1	7.30E-10	7.30E-04	8.06E-04
176	1.4E-06	631	1	0.96	0.000001	8.3E-10	1.1	3	13.59	70	1	5.35E-10	5.35E-04	5.90E-04
177	1.1E-06	631	1	0.96	0.000001	6.5E-10	1.1	3	13.59	70	1	4.16E-10	4.16E-04	4.59E-04
178	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.61E-10	1.61E-04	1.78E-04
179	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	2.00E-10	2.00E-04	2.20E-04
180	6.5E-07	631	1	0.96	0.000001	3.9E-10	1.1	3	13.59	70	1	2.52E-10	2.52E-04	2.78E-04
181	8.8E-07	631	1	0.96	0.000001	5.3E-10	1.1	3	13.59	70	1	3.41E-10	3.41E-04	3.76E-04
182	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.94E-10	4.94E-04	5.46E-04
183	2.2E-06	631	1	0.96	0.000001	1.3E-09	1.1	3	13.59	70	1	8.40E-10	8.40E-04	9.27E-04
184	2.7E-06	631	1	0.96	0.000001	1.6E-09	1.1	3	13.59	70	1	1.05E-09	1.05E-03	1.16E-03
185	1.7E-06	631	1	0.96	0.000001	1.0E-09	1.1	3	13.59	70	1	6.54E-10	6.54E-04	7.22E-04
186	1.3E-06	631	1	0.96	0.000001	7.7E-10	1.1	3	13.59	70	1	4.91E-10	4.91E-04	5.42E-04
187	1.0E-06	631	1	0.96	0.000001	6.1E-10	1.1	3	13.59	70	1	3.88E-10	3.88E-04	4.28E-04
188	3.8E-07	631	1	0.96	0.000001	2.3E-10	1.1	3	13.59	70	1	1.46E-10	1.46E-04	1.61E-04
189	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.77E-10	1.77E-04	1.96E-04
190	5.7E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.20E-10	2.20E-04	2.42E-04
191	7.4E-07	631	1	0.96	0.000001	4.5E-10	1.1	3	13.59	70	1	2.85E-10	2.85E-04	3.15E-04
192	9.9E-07	631	1	0.96	0.000001	6.0E-10	1.1	3	13.59	70	1	3.86E-10	3.86E-04	4.26E-04
193	1.5E-06	631	1	0.96	0.000001	9.0E-10	1.1	3	13.59	70	1	5.77E-10	5.77E-04	6.36E-04
194	2.5E-06	631	1	0.96	0.000001	1.5E-09	1.1	3	13.59	70	1	9.66E-10	9.66E-04	1.07E-03
195	1.4E-06	631	1	0.96	0.000001	8.7E-10	1.1	3	13.59	70	1	5.58E-10	5.58E-04	6.16E-04
196	1.1E-06	631	1	0.96	0.000001	6.8E-10	1.1	3	13.59	70	1	4.37E-10	4.37E-04	4.82E-04
197	9.2E-07	631	1	0.96	0.000001	5.5E-10	1.1	3	13.59	70	1	3.56E-10	3.56E-04	3.92E-04
198	3.4E-07	631	1	0.96	0.000001	2.0E-10	1.1	3	13.59	70	1	1.30E-10	1.30E-04	1.43E-04
199	4.0E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.56E-10	1.56E-04	1.73E-04
200	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.86E-10	1.86E-04	2.05E-04

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
201	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.35E-10	2.35E-04	2.60E-04
202	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	3.02E-04	3.33E-04
203	1.0E-06	631	1	0.96	0.000001	6.3E-10	1.1	3	13.59	70	1	4.04E-10	4.04E-04	4.46E-04
204	1.4E-06	631	1	0.96	0.000001	8.6E-10	1.1	3	13.59	70	1	5.48E-10	5.48E-04	6.05E-04
205	1.2E-06	631	1	0.96	0.000001	7.2E-10	1.1	3	13.59	70	1	4.59E-10	4.59E-04	5.07E-04
206	9.8E-07	631	1	0.96	0.000001	5.9E-10	1.1	3	13.59	70	1	3.80E-10	3.80E-04	4.19E-04
207	8.2E-07	631	1	0.96	0.000001	5.0E-10	1.1	3	13.59	70	1	3.19E-10	3.19E-04	3.52E-04
208	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.85E-10	1.85E-04	2.05E-04
209	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.65E-10	1.65E-04	1.82E-04
210	3.0E-07	631	1	0.96	0.000001	1.8E-10	1.1	3	13.59	70	1	1.17E-10	1.17E-04	1.29E-04
211	3.5E-07	631	1	0.96	0.000001	2.1E-10	1.1	3	13.59	70	1	1.37E-10	1.37E-04	1.51E-04
212	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.62E-10	1.62E-04	1.78E-04
213	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.97E-10	1.97E-04	2.18E-04
214	6.2E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.42E-10	2.42E-04	2.67E-04
215	7.8E-07	631	1	0.96	0.000001	4.7E-10	1.1	3	13.59	70	1	3.02E-10	3.02E-04	3.33E-04
216	9.6E-07	631	1	0.96	0.000001	5.8E-10	1.1	3	13.59	70	1	3.73E-10	3.73E-04	4.11E-04
217	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.42E-10	2.42E-04	2.68E-04
218	5.7E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.21E-10	2.21E-04	2.44E-04
219	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.96E-10	1.96E-04	2.17E-04
220	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.77E-10	1.77E-04	1.96E-04
221	4.1E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.58E-10	1.58E-04	1.74E-04
222	2.7E-07	631	1	0.96	0.000001	1.6E-10	1.1	3	13.59	70	1	1.04E-10	1.04E-04	1.15E-04
223	3.1E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.20E-10	1.20E-04	1.33E-04
224	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.39E-10	1.39E-04	1.54E-04
225	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.66E-10	1.66E-04	1.84E-04
226	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.97E-10	1.97E-04	2.18E-04
227	6.1E-07	631	1	0.96	0.000001	3.7E-10	1.1	3	13.59	70	1	2.35E-10	2.35E-04	2.60E-04
228	7.1E-07	631	1	0.96	0.000001	4.3E-10	1.1	3	13.59	70	1	2.77E-10	2.77E-04	3.06E-04
229	6.3E-07	631	1	0.96	0.000001	3.8E-10	1.1	3	13.59	70	1	2.43E-10	2.43E-04	2.69E-04
230	5.8E-07	631	1	0.96	0.000001	3.5E-10	1.1	3	13.59	70	1	2.23E-10	2.23E-04	2.46E-04
231	5.2E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	2.01E-10	2.01E-04	2.22E-04
232	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.81E-10	1.81E-04	2.00E-04
233	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.65E-10	1.65E-04	1.82E-04
234	3.8E-07	631	1	0.96	0.000001	2.3E-10	1.1	3	13.59	70	1	1.49E-10	1.49E-04	1.64E-04
235	2.4E-07	631	1	0.96	0.000001	1.5E-10	1.1	3	13.59	70	1	9.48E-11	9.48E-05	1.05E-04
236	2.8E-07	631	1	0.96	0.000001	1.7E-10	1.1	3	13.59	70	1	1.07E-10	1.07E-04	1.19E-04
237	3.2E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.23E-10	1.23E-04	1.36E-04
238	3.7E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.42E-10	1.42E-04	1.57E-04
239	4.2E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.64E-10	1.64E-04	1.82E-04
240	4.9E-07	631	1	0.96	0.000001	3.0E-10	1.1	3	13.59	70	1	1.91E-10	1.91E-04	2.11E-04

Pacific Square

Unmitigated 800 San Gabriel Operation - On-Road Emissions

Risk to receptors from 2 to 16 years of age

Receptor #	Cair	DBR	A	EF	Constant1	DOSE	CPF	ASF	ED	AT	FAH	(3rd Tri)	(Risk / Mill)	Total Risk
241	5.6E-07	631	1	0.96	0.000001	3.4E-10	1.1	3	13.59	70	1	2.18E-10	2.18E-04	2.41E-04
242	5.5E-07	631	1	0.96	0.000001	3.3E-10	1.1	3	13.59	70	1	2.13E-10	2.13E-04	2.35E-04
243	5.1E-07	631	1	0.96	0.000001	3.1E-10	1.1	3	13.59	70	1	1.99E-10	1.99E-04	2.20E-04
244	4.7E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.82E-10	1.82E-04	2.01E-04
245	4.3E-07	631	1	0.96	0.000001	2.6E-10	1.1	3	13.59	70	1	1.67E-10	1.67E-04	1.84E-04
246	3.9E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.51E-10	1.51E-04	1.67E-04
247	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.39E-10	1.39E-04	1.53E-04
248	2.2E-07	631	1	0.96	0.000001	1.3E-10	1.1	3	13.59	70	1	8.51E-11	8.51E-05	9.40E-05
249	2.5E-07	631	1	0.96	0.000001	1.5E-10	1.1	3	13.59	70	1	9.58E-11	9.58E-05	1.06E-04
250	2.8E-07	631	1	0.96	0.000001	1.7E-10	1.1	3	13.59	70	1	1.08E-10	1.08E-04	1.20E-04
251	3.2E-07	631	1	0.96	0.000001	1.9E-10	1.1	3	13.59	70	1	1.23E-10	1.23E-04	1.36E-04
252	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.41E-10	1.41E-04	1.55E-04
253	4.1E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.60E-10	1.60E-04	1.77E-04
254	4.6E-07	631	1	0.96	0.000001	2.8E-10	1.1	3	13.59	70	1	1.78E-10	1.78E-04	1.97E-04
255	4.8E-07	631	1	0.96	0.000001	2.9E-10	1.1	3	13.59	70	1	1.87E-10	1.87E-04	2.06E-04
256	4.5E-07	631	1	0.96	0.000001	2.7E-10	1.1	3	13.59	70	1	1.76E-10	1.76E-04	1.94E-04
257	4.2E-07	631	1	0.96	0.000001	2.5E-10	1.1	3	13.59	70	1	1.63E-10	1.63E-04	1.80E-04
258	3.9E-07	631	1	0.96	0.000001	2.4E-10	1.1	3	13.59	70	1	1.51E-10	1.51E-04	1.67E-04
259	3.6E-07	631	1	0.96	0.000001	2.2E-10	1.1	3	13.59	70	1	1.40E-10	1.40E-04	1.55E-04
260	3.4E-07	631	1	0.96	0.000001	2.0E-10	1.1	3	13.59	70	1	1.30E-10	1.30E-04	1.44E-04

Appendix B-4

Per Capita Vehicle Miles Traveled Determination

Pacific Square EIR
Per Captia VMT Determination

Land Use	Trips	C-C %	Customer Trips
Apartments	1,232		
City Park	0		
Parking Structure	0		
Parking lot	0		
Fast Food Restaurant w/o Dr	2,522	79.50%	2,005
General Office Building	50	48.00%	24
Health Club	452	64.10%	290
High Tunover (Sit Down Rest	418	72.50%	303
Strip Mall	140	64.40%	90
Supermarket	1,215	74.50%	905
	6,029		
-apartments	-1,232		
total Non-Residential Trips	4,797		3,617
Total round trips	2,398		1,808
Total Employees	171		
Total Visitor trips	2,227		1,808
	975		975
Service Population	3,202		2,783

Source:

CalEEMod: Pacific Square Operations. (Default Trip Assignments)

LDV VMT Calculations

2003 LDV VMT	265,567,670
2003 Total VMT	289,350,589
% of VMT that is LDV	91.78%
Project VMT	31,209
Project LDV VMT	28,644
Service Population	2,783
Project Per Capita VMT	10.29

Pacific Square EIR
Response to Comment 5-55 - Per Captia VMT Determination

2003	2004	
210,231,567	208,271,574	LA County Basline VMT: SC
10,924,747	10,966,182	LA County Mojave Desert
221,156,314	219,237,757	Total VMT
10,581,976	10,627,846	LA County Baseline Population
20.90	20.63	Per Capita

Source: https://ww2.arb.ca.gov/resources/documents/carb-2017-scoping-plan-identified-vmt-reductions-and-relationship-state-climate

Pacific Square - Operations

Los Angeles-South Coast County, Annual

4.0 Operational Detail - Mobile

Operational mobile emissions calculated outside of CalEEMod

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,232.41	1,232.41	1232.41	4,211,332	4,211,332
City Park	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	2,521.96	2,521.96	2521.96	4,567,373	4,567,373
General Office Building	49.76	49.76	49.76	160,298	160,298
Health Club	541.69	541.69	541.69	1,158,547	1,158,547
High Turnover (Sit Down Restaurant)	418.00	418.00	418.00	569,663	569,663
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Strip Mall	140.41	140.41	140.41	267,137	267,137
Supermarket	1,214.72	1,214.72	1214.72	1,602,784	1,602,784
Total	6,118.94	6,118.94	6,118.94	12,537,134	12,537,134

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 Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
Supermarket	16.60	8.40	6.90	6.50	74.50	19.00	34	30	36

Appendix B-5

CEQA Transportation Study Update Memorandum

FEHR PEERS

Memorandum

Date: 22 April 2021

To: Jessie Fan, ESA & City of San Gabriel

From: Ryan Liu, EIT & John Muggridge, AICP

Subject: Pacific Square Project EIR – CEQA Transportation Study Update

LA18-3036

The purpose of this memorandum is to analyze the consistency of the Pacific Square CEQA Transportation Study with the recently updated Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). CEQA requires a review of a project's potential to conflict with adopted transportation-related plans, programs, ordinances, and policies (PPOP) that have been adopted to protect the environment. This review takes into account all modes of transportation and relevant components of the circulation system. The Pacific Square CEQA Transportation Study, dated October 2020, performed a transportation-related PPOP review covering the earlier 2016-2040 SCAG RTP/SCS. Since then, SCAG and the California Air Resources Board has fully adopted the 2020-2045 RTP/SCS, otherwise known as Connect SoCal. This memorandum serves as an update to the PPOP analysis of the Transportation Study.

Project Description

The proposed Pacific Square Project is located at 700-800 San Gabriel Boulevard in San Gabriel, California, covering an existing empty lot bound by San Gabriel Boulevard, El Monte Street, Gladys Avenue, and Grand Avenue. The Project Site is surrounded by various commercial, multi-family, and single-family residential uses. The Project would consist of 251 new residential condominium units, 6,766 square feet of workspace office, 20,330 square feet of supermarket space, 7,115 square feet of retail space, 5,000 square feet of high-turnover (sit-down) restaurant space, 6,060 square feet of fast casual restaurant space, 2,500 square feet of bakery space, 3,042 square feet of café space, 25,233 square feet of fitness center space, and host a weekly event of no more than 10 vendors. The Project would be served by various driveways along Gladys Avenue, El Monte Street, San Gabriel Boulevard, and Grand Avenue, with primary commercial visitor access at the intersection of San Gabriel Boulevard and Pearl Street, to be signalized as part of the Project. The entire Project is expected to be completed in December 2023.

Revised Plans, Programs, Ordinances, and Policies Review

As discussed earlier, a prior review of the Project's potential to conflict with transportation-related PPOP was performed in the October 2020 CEQA Transportation Study. This revision replaces the review of consistency of the 2016-2040 RTP/SCS with a review of consistency of the 2020-2045 RTP/SCS.

SCAG 2020-2045 RTP/SCS (Connect SoCal)

SCAG recently adopted Connect SoCal, which is the region's long-range visioning plan that builds upon and expands land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern. It charts a path towards a more mobile, sustainable, and prosperous Southern California region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for residents. Below are specific goals and objectives in the Connect SoCal Plan that are applicable to this Project:

- Adapt to a changing climate and support an integrated regional development pattern and transportation network
- Leverage new transportation technologies and data-driven solutions that result in more efficient travel
- Encourage development of diverse housing types in areas that are supported by multiple transportation options
- Promote conservation of natural and agricultural lands and restoration of habitats

The Project supports and is consistent with the above goals in the Connect SoCal Plan by providing additional residential and commercial density in an infill area. The Project is located in a designated Redevelopment Area per Figure 1-4 in the City of San Gabriel General Plan, supporting regional development patterns and avoiding development of natural or agricultural lands. The Project encourages efficient travel by shortening trips by providing more locally serving retail options in the area and being served by bus transit. Because the Project is mixed-use, Project Site residents would be able to patronize the Site's commercial uses and other nearby commercial uses without needing to drive a car.

The Project features and design supports multimodal transportation options and would be consistent with the Connect SoCal Plan. The Project design includes features to minimize impacts to the public right-of-way and enhance walkability to adjacent existing uses. The Project proposes to add new sidewalks and street trees within the Project Site and along the perimeter as well as improved street and pedestrian lighting that aim to enhance connectivity to the existing pedestrian network. The proposed open space and plaza located midblock between both Plazas would facilitate pedestrian activity within the Project Site and from the neighboring areas to the

east and west. The Project also proposes to add a new traffic signal at the intersection of San Gabriel Boulevard and Pearl Street, which would provide for a safe signalized pedestrian crossing and enhanced walking conditions. The Project does not propose to narrow sidewalks or remove streetscape amenities or features. The proposed Project would provide streetscaping on all public frontages, such as street trees, sidewalks, turf parkway, raised planters, and green screen planters, which would provide a buffer between the proposed development and the surrounding neighbors. The locations of driveways are intended to minimize disruptions to the pedestrian right-of-way. The Project would provide 30 bicycle parking spaces which is three more than the minimum requirement of 27 bicycle parking spaces, facilitating bicycle travel. The Project would not substantially increase hazards, conflicts, or preclude City action to fulfill or implement projects associated with these networks and plans, and would contribute to overall walkability through enhancements to the Project Site. The Project would be consistent with the goals and policies set out in the Connect SoCal Plan. Therefore, the Project would have a less than significant impact on City and SCAG transportation-related plans, programs, ordinances, and policies.