Final Environmental Impact Report

SCH No. 2022120346

Whittier Boulevard Business Center Project

City of Whittier, California

Lead Agency:

City of Whittier
13230 Penn Street
Whittier, CA 90602

November 21, 2023

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F.0 FINAL ENVIRONMENTAL IMPACT REPORT

F.1 INTRODUCTION

This Final Environmental Impact Report (FEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 *et seq.*) and CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 *et seq.*).

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

a. The Draft EIR (DEIR) or a revision of the draft;

b. Comments and recommendations received on the DEIR either verbatim or in summary;

c. A list of persons, organizations, and public agencies commenting on the DEIR;

d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

e. Any other information added by the Lead Agency.

In accordance with the above-listed requirements, this FEIR for the Whittier Boulevard Business Center Project (hereafter, the "Project") and associated discretionary and administrative actions, consists of the following:

a. Comment letters and responses to public comment; and

b. The circulated Whittier Boulevard Business Center Project DEIR and Technical Appendices, SCH No. 2022120346, with additions shown as <u>underlined text</u> and deletions shown as ~~stricken text~~ (refer to Subsection F.3, *Additions, Corrections, and Revisions to the Draft EIR*, for a summary of the changes to the EIR since the DEIR was circulated for public review).

This FEIR document was prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the CEQA Lead Agency (City of Whittier).

F.2 RESPONSES TO DEIR COMMENTS

The City of Whittier received nine (9) comment letters in response to the DEIR. A list of the agencies, organizations, and persons that submitted comments on the DEIR is presented in Table F-1, *Organizations, Persons, and Public Agencies that Commented on the DEIR*.

Table F-1 Organizations, Persons, and Public Agencies that Commented on the DEIR

Comment Letter	Commenting Party	Date
A	California Department of Transportation (Caltrans)	8/10/2023
B	Advocates for the Environment	8/23/2023
C	County of Los Angeles Fire Department	8/21/2023
D	Department of Toxic Substances Control	8/29/2023
E	California Air Resources Board (CARB)	9/8/2023
F	South Coast Air Quality Management District (SCAQMD)	9/8/2023
G	Robin Park	9/10/2023
H	LA County Sheriff	9/11/2023
I	Blum, Collins & Ho (Golden State Environmental Justice Alliance)	9/12/2023

F.2.2 CEQA Requirements

CEQA Guidelines Section 15088 requires the Lead Agency (City of Whittier) to evaluate comments received from public agencies and interested parties who reviewed the DEIR and to provide written responses with good faith and reasoned analysis to comments that relate to significant environmental issues.

CEQA Guidelines Section 15204(a) outlines the parameters for public agencies and interested parties to submit comments and the Lead Agency's responsibility for responding to specific comments. Per CEQA Guidelines Section 15204(a), comments should be related to:

> *[T]he sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible…CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or suggested by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*

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

Per CEQA Guidelines Section 15088(c), the level of detail contained in the response may correspond to the level of detail provided in the comment: "A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment."

F.2.3 Responses to DEIR Comments

Copies of each of the comment letters referenced in Table F-1 are provided on the following pages, followed by responses to each individual comment. CEQA Guidelines Section 15088.5 requires recirculation when "significant" new information is added to an EIR, meaning the EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to avoid such an effect, including a feasible project alternative, that the applicant declines to implement. "Significant" new information requiring recirculation includes (1) a new significant environmental impact; (2) a substantial increase in the severity of an environmental impact; (3) a feasible project alternative or mitigation measure that would clearly lessen the significant environmental impacts of the project, but the applicant declines to adopt it; or (4) a fundamentally and basically inadequate and conclusory draft EIR (CEQA Guidelines Section 15088.5; see also, *Laurel Heights Improvement Assn. v. Regents of University of California* [1993] 6 Cal. 4th 1112). None of the responses to the comment letters submitted to the City required the addition of significant new information to the DEIR or otherwise meet the requirements of CEQA Guidelines Section 15088.5. Instead, these responses to comments supplement the draft EIR's analysis of the same potentially significant impacts already disclosed therein. Therefore, recirculation is not required.

COMMENT LETTER A

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7- OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, SUITE 100
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Making Conservation a California Way of Life.

August 10, 2023

Ellen Fitzgerald, Principal Planner
13230 Penn Street,
Whittier, CA 90602

RE: Whittier Boulevard Business Center Project
– Draft Environmental Impact Report (DEIR)
SCH# 2022120346
GTS# 07-LA-2022-04284
Vic. LA-72 PM 4.707

Dear Ellen Fitzgerald:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The Project involves redevelopment of a 13.49-acre property with one employment-generating manufacturing building having up to 295,959 s.f. of floor space, including 7,000s.f. of interior mezzanine space. The Project Applicant is seeking the approval of a Development Review Permit (DRP21-0065) and Conditional Use Permit (CUP22-007), and a Certificate of Appropriateness (HRC22-0012) to demolish the existing buildings on site. The Project is proposed on a speculative basis, meaning that the proposed building's tenant is not known at this time. The building is designed to accommodate uses such as manufacturing, assembly, research and development, light industrial, and related uses, with ancillary distribution and storage space in compliance with the Whitter Boulevard Specific Plan's Workplace District designation. The building is designed with a primary office space facing the Whittier Boulevard frontage road, a potential future office at the northwest corner of the building, and 24 loading docks positioned on the south-facing side of the building. A total of 417 parking stalls are proposed in a surface parking lot to service the building. A-1

The nearest State facility to the proposed project is SR 72. After reviewing the DEIR, Caltrans has the following comments:

Due to the increased volume of truck trips through the area, Caltrans recommends that the developer contribute to a city project that will address potential safety concerns for people walking, riding bikes, and taking transit. The most effective methods to reduce pedestrian and bicyclist exposure to vehicles is through physical design and geometrics. These methods include the construction of physically separated facilities such as Class IV bike lanes, wide sidewalks, pedestrian refuge islands, landscaping, street furniture, and reductions in crossing distances through roadway narrowing. A-2

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

Additionally, the Project area is adjacent to State Route 72. Please be aware that any work proposed on or adjacent to Caltrans facilities will require an encroachment permit and all environmental concerns must be adequately addressed. The transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will also require a Caltrans transportation permit. A-3

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS# 07-LA-2022-04284. A-4

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR Branch Chief

cc: State Clearinghouse

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

RESPONSES TO COMMENT LETTER A:
California Department of Transportation (Caltrans)

A-1 In this introductory comment, the California Department of Transportation (Caltrans) acknowledges reviewing the DEIR and provides an accurate overview of the proposed Project. The introductory comment is noted. No further response is required.

A-2 Caltrans makes a general recommendation that the applicant contribute to a project that addresses transportation safety and reduces pedestrian and bicyclist exposure to vehicles. The comment does not point to any deficient analysis in the DEIR. As discussed in DEIR Section 5.0, *Other CEQA Considerations*, Subsection 5.4.12, *Transportation*, redevelopment of the Project Site will result in less-than-significant transportation impacts. The Project was reviewed for consistency with policies contained in the Mobility and Infrastructure Element of the Envision Whittier General Plan and the City determined that the proposed Project would not conflict with policies related to the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Additionally, the City reviewed the Project's application materials and determined that no hazardous transportation design features would be introduced through implementation of the Project. As described in DEIR Section 3.0, *Project Description*, the existing sidewalk adjacent to the east side of the Project Site along the Whittier Boulevard frontage road would be removed and replaced with new sidewalk. Additionally, landscaping would be concentrated around the perimeter of the Project Site including along the Whittier Boulevard frontage road. The Project Site does not front Whittier Boulevard and is therefore not directly related to its existing sidewalk, bike lane, and trail facilities.

A-3 Caltrans states that the Project site is adjacent to State Route 72 (Whittier Boulevard) and work proposed on or adjacent to Caltrans facilities would require a Caltrans encroachment permit. Caltrans also notes that the use of oversized transport vehicles on State highways for Project-related construction activities would require a Caltrans transportation permit. No Project-related work would occur on or immediately adjacent to Caltrans jurisdiction at State Route 72 (Whittier Boulevard). The Project site is adjacent to the Whittier Boulevard frontage road, and not Whittier Boulevard. Proposed Site-adjacent improvements to the frontage road include curb and gutter, removing the existing sidewalk and replacing with a new sidewalk, landscaping/irrigation, streetlights, fire hydrants, and two driveway curb cuts. All of these improvements would occur at the frontage road in the City of Whittier's jurisdiction and not in Caltrans jurisdiction. The requirement for a Caltrans permit for oversized vehicle transport, if needed during Project construction, is noted.

A-4 The commenter provides Caltrans contact information. This information is acknowledged. No further response is required.

Comment Letter B

August 23, 2023

Advocates for the Environment
A non-profit public-interest law firm
and environmental advocacy organization

Ellen Fitzgerald
Principal Planner
City of Whittier
13230 Penn Street
Whittier, CA 90601

Via U.S. Mail and email to efitzgerald@cityofwhittier.org

re: Comments on the Draft Environmental Impact Report Whittier Boulevard Business Center, SCH No. 2022120346

Dear Ms. Fitzgerald:

Advocates for the Environment submits the comments in this letter regarding the Draft Environmental Impact Report (**DEIR**) for the Whittier Boulevard Business Center Project (**Project**). The Project Site is located along the Western side of the Whittier Boulevard frontage road, between Walnut Grove Drive and Pacific Place, within the City of Whittier (**City**), Los Angeles County, and would affect 13.49 acres of land. The Project proposes demolition of existing buildings and construction of one 295,959 square-foot light industrial/manufacturing building. The resulting warehouse would employ approximately 592 employees. (DEIR p. 3-17.) We have reviewed the DEIR released in July 2023 and submit comments regarding the sufficiency of the DEIR's Greenhouse-Gas (**GHG**) analysis under the California Environmental Quality Act (**CEQA**). B-1

The City Should Require the Project to be Net-Zero

GHG emissions from buildings, including indirect emissions from offsite generation of electricity, direct emissions produced onsite, and from construction with cement and steel, amounted to 21% of global GHG emissions in 2019. (IPCC Sixth Assessment Report, Climate Change 2022, WGIII, Mitigation of Climate Change, p. 9-4.) This is a very large portion of global GHG emissions. It is much less expensive to construct new building projects to be net-zero than to obtain the same level of GHG reductions by retrofitting older buildings. Climate damages will keep increasing until we reach net zero GHG emissions, and there is a California state policy requiring the state to be net-zero by 2045. It therefore makes no sense to construct new buildings that are not net-zero.

Two of the largest mixed-use development projects in the history of California, Newhall Ranch (now FivePoint Valencia), and Centennial (part of Tejon Ranch) decided, after environmental groups sued and won under CEQA, to move forward as net-zero communities. This proves it is feasible. The Applicant for this project should do the same. We urge the City to adopt net-zero as the GHG significance threshold for this project, and require full fair-share mitigation. The CARB 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution B-2

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to GHG impacts, is an appropriate overall objective for new development." (p. 101.) Additionally, the CARB 2022 Scoping Plan reaffirms the necessity of a net zero target by expressing: "it is clear that California must transition away from fossil fuels to zero-emission technologies with all possible speed … in order to meet our GHG and air quality targets." (CARB 2022 Scoping Plan, p. 184.) CARB further encourages a net-zero threshold in its strategies for local actions in Appendix D to the 2022 Scoping Plan. (CARB 2022 Scoping Plan, Appendix D p. 24-26.)

Moving this Project forward as a net-zero project would be the right thing for the City to do and would also help protect the City and the Applicant from CEQA GHG litigation.

B-2 (CONT.)

The Project's GHG Impacts Must be Fully Mitigated

The estimated project-related emissions amounts to 5,710.83 metric tons of carbon dioxide equivalent (**MTCO2e**) per year, including 30-year amortized construction emissions of 25.83 MTCO2e per year. (DEIR, p. 4.3-18.) The City adopted a dual GHG significance threshold based on CEQA guidelines Appendix G, and concluded the Project would have significant and unavoidable GHG impact as to Threshold A ("Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?"). (DEIR p. 4.3-17.) The City did not propose any mitigation to reduce the significant impact, claiming that it is infeasible. Despite an apparent availability of other GHG mitigation and Project alternatives, the DEIR declared that the Project's quantified emissions were "significant and unavoidable cumulatively-considerable impact for which no feasible mitigation is available." (DEIR p. 4.3-20.) But this is not true. There are other readily available mitigation measures.

B-3

Since the Project's GHG emissions would be significant, CEQA requires that the Project include fair-share mitigation (*Napa Citizens for Honest Gov't v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 364.) Here, this means mitigation of the entirety of the Project's GHG impact. The amount of GHG emissions that comprises the Project's fair share is clear. The EIR quantified the Project's annual emissions at about 20,504 MTCO2e. The reasonable lifespan can be deduced by the 30-year amortization period for construction emissions. (DEIR p. 4.3-18.) Therefore, there is a quantifiable estimate of total Project emissions by multiplying the annual estimate by the predicted lifespan, which would amount to 171,324.90 MTCO2e.[1] This would be a good starting point from which to subtract the effect of non-offset mitigation measures, before implementing offset purchases.

B-4

[1] (5,710.83 MTCO2e) x (30-year estimate) = 171,324.90 MTCO2e

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Infeasibility Finding Lacks Substantial Evidence

The conclusion that the Project will not be able to achieve any mitigation beyond the Project's mitigation measures is not supported with substantial evidence. Overall, as discussed in the next section of this letter, there are abundant options available to mitigate emissions to the full extent of project emissions. The lead agency carries the burden of including an adequate discussion of feasible mitigation measures, including identifying the reasons for infeasibility, and the failure to do so here is a violation of CEQA and insufficient to meet the City's burden. B-5

First, the DEIR notes that mobile emissions are not controllable, and therefore not feasible to mitigate, stating: "[n]either the Project Applicant nor the Lead Agency (City of Whittier) can substantively or materially affect reductions in Project mobile-source emissions beyond federal and State regulations." (DEIR p. 4.3-20.) However, the City has the capacity to control the emissions directly and indirectly related to this project. For example, the City can require that all construction vehicles and equipment on the site adhere to the best available emissions control technology, including the latest GHG standards. Additionally, requiring vehicle fleets to be powered by alternative fuel types would effectively emit less GHGs; and the City could require that the applicant's lease agreements included provisions to limit the use of heavy-duty diesel trucks or require that the tenant's vehicle fleet use non-diesel fuels such as gasoline, ethanol, or biofuels. Another feasible mitigation measure could require the applicant to enter a contract with future tenants to use zero-emission commercial vehicles upon reasonable availability by maintaining a fully-electric or hybrid vehicle fleet which powers itself through solar panels on the warehouse site. Such mitigation would be necessary to bring this Project's GHG emissions to the level of less-than-significant impact. B-6 B-7 B-8

By saying that GHG impact is unavoidable, the DEIR implies that mitigation for non-mobile source emissions is also not feasible. The DEIR addressed its purported lack of authority to influence mobile emissions, but CEQA Guidelines do not distinguish mitigation measures based on whether they are from mobile sources. There are several measures, including solar panels, solar water heaters, automatic light switches, among many other mitigation strategies that can be incorporated to reduce non-mobile emissions. The City could also commit to offsets or require the Applicant to enter into an agreement to buy clean power. The DEIR analysis indicates that achieving any mitigation measure is not feasible given the current regulatory setting, but CEQA allows offsets as a mitigation measure, which could be implemented to achieve net zero and reduce the Project's GHG impact to the fair share extent as required by CEQA. Therefore, the conclusion that further mitigation would be infeasible has not been supported by substantial evidence. B-9 B-10 B-11

Feasible Mitigation Measures that Target Operational Emissions Reductions

The DEIR indicates that the Project would adhere to the mandatory measures of the California Green Buildings Standards Code, but it would be feasible to go beyond the requirements to also incorporate voluntary measures as mitigation. For example, the Project could aim to achieve the B-12

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LEED (Leadership in Energy and Environmental Design) certification standard. Further, all buildings on-site could include green roof strategies for all portions of the roof that are not utilized for solar panels, in order to contribute to energy savings and therefore GHG emissions reductions. Some examples of green roof features include the use of solar reflection or thermal emittance materials, and the construction of a thermal mass, such as vegetation on the roof. B-12 (CONT.)

The Project should also implement a corresponding Transportation Demand Management Program, which would provide free or reduced parking rates for registered carpools or vanpools, provide on-site carsharing vehicles or bikes, allow for flexible or alternative work hours to allow for public transportation schedules, and provide access to convenient services within a quarter mile of the site to reduce the need to drive. B-13

There are many other strategies that can achieved operational GHG emissions reductions through building design measures and Project-related transportation infrastructure. The City should consider all feasible operational emissions reductions and include corresponding mitigation measures to achieve such reductions in the DEIR. B-14

Solar Panel Installation is a Feasible Mitigation Measure

One of the most important feasible mitigation measures is installing solar panels or otherwise incorporating renewable energy production on-site, as to be less reliant on GHG-intense fuels which power the City's energy system. It would be readily achievable to install solar panels on the roof, or at the very least, require the maximum feasible amount of solar-ready roof. Industrial manufacturing buildings such as this one often have considerable roof space conducive to solar panels, and likewise it would be feasible to install solar panels on the entire available surface. It would also be feasible to build canopies in the parking lots and install solar panels on them. B-15

Feasible Mitigation Measures of Particular Relevance to Industrial/Manufacturing

Certain mitigation is available to this Project that may be particularly useful and effective at reducing emissions because the building is proposed to be industrial and/or manufacturing. The Project could require emergency generators to be powered by clean energy, enter into agreements with future tenants to enroll in the U.S. Environmental Protection Agency's SmartWay program[2] for trucking carries and to use electric equipment and vehicles to the extent possible—including requiring heavy-duty drayage trucks to be electric—and strictly prohibit idling on the premises. Lastly, we propose that the Project incorporate electric vehicle/truck charging stations proportionate to the number of dock loading stations. B-16 B-17

[2] Learn About Smart Way, https://www.epa.gov/smartway/learn-about-smartway

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Offsets Are Feasible

Since there is no reason why CEQA-compliant offsets are infeasible, the City should require the Applicant to purchase offsets to the extent necessary to mitigate the Project's fair share of emissions. The DEIR did not include any discussion of offsets, which would likely be required to reduce the Project's GHG impacts to zero, its fair-share mitigation. There are numerous offsets available for purchase that could negate the Project's significant GHG emissions, and the failure to identify offsets as a mitigation measure while at the same time concluding unavoidable impact is misleading and not supported by substantial evidence.

B-18

Analysis on Consistency with Applicable Plans is Misleading

The DEIR's second GHG threshold, Threshold b, states that the Project would have significant GHG impacts of it were to "conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases" (**Threshold B**) (DEIR p. 4.3-20). The DEIR claims that this impact would be less than significant, but this is inaccurate and misleading because the Project would conflict with certain applicable plans. The language in Threshold B requires the Project to comply with *all* applicable plans, not only the plans most favored by the City: AB 32 and SB 32, SCAG's 2016-2040 RTP/SCS, and the Title 24 CBSC. DEIR excluded meaningful analysis of several applicable plans, including Executive Order (**EO**) B-55-18. After consideration of consistency with certain plans, the DEIR concluded the Project would have no significant GHG impact under this adopted threshold; but this is an erroneous conclusion that is misleading of the Project's true GHG impact.

B-19

Although the analysis included a discussion of SB-32 and the corresponding CARB 2017 Scoping Plan, it left out an important benchmark to demonstrate consistency with the Scoping Plan: To achieve SB-32's GHG emissions reduction goals, including 40% below 1990 levels by 2030, the Scoping Plan sets out statewide goals for total GHG emissions targets of 6 MTCO2e/capita by 2030, and 2 MTCO2e/capita by 2050. With estimated annual emissions of 9.6 MTCO2e/service population/capita, the Project is far from consistent from these targets.[3] Adherence to individual measures, as the DEIR attempted to demonstrate in its analysis, is not a substitute for demonstrating consistency with this straightforward goal. Despite meeting some of the action items listed in the 2017 Scoping Plan consistency summary (DEIR p. 4.3-18), the Project is inconsistent with SB-32 and the CARB 2017 Scoping Plan.

In addition to consistency with the 2017 Scoping Plan, the DEIR briefly analyzed CARB's 2022 Climate Change Scoping Plan (**2022 CARB Scoping Plan**), which sets a goal for 50% of all industrial energy demand to be electrified by 2045 (2022 CARB Scoping Plan, p. 77). This is a

B-20

[3] 5,685.00 MTCO2e/year ÷ 592 service population = 9.6 MTCO2e/year/service population. (Without the inclusion of amortized construction emissions).

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requirement that the City should provide further analysis and specification to demonstrate that the Project will meet in order to be consistent with the 2022 CARB Scoping Plan. The 2022 CARB Scoping Plan also places particular emphasis on decarbonizing industrial facilities by "displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions" (2022 2022 CARB Scoping Plan, p. 208). The City should demonstrate adherence to these measures if it wishes to claim consistency with the 2022 CARB Scoping Plan.

B-20 (CONT.)

Further, if the DEIR had analyzed with all applicable plans, the DEIR would include a discussion of consistency with Executive Order (**EO**) B-55-18. EO B-55-18 requires the State to achieve carbon neutrality—net zero GHG emissions—by 2050. The Project is inconsistent with EO B-55-18 because it will use gasoline, diesel, and natural gas, which result in substantial GHG emissions. Because the Project is inconsistent with the 2017 CARB Scoping Plan, 2022 CARB Scoping Plan, and EO B-55-18, its emissions will be significant under GHG Threshold b.

B-21

Therefore, the City must either demonstrate consistency with all applicable plans, policies, and regulations for the reduction of GHG emissions, or otherwise must conclude significant impact as to GHG Threshold b.

B-22

Alternatives

CEQA requires an EIR to "describe a range of reasonable alternatives" to "avoid or substantially lessen any of the significant effects of the project" (14 CFR §15126.6). An adequate discussion of alternatives should include renovation of the six existing buildings rather than demolition. Building retrofit and renovation rather than demolition can lower GHG emissions for nearly all buildings (Preservation Green Lab[4]). Further, renovated buildings have the greatest short-term GHG savings because they have fewer materials inputs (Preservation Green Lab[5]). The City did not account for the GHG impact of choosing to demolish the buildings rather than utilize the materials in the new project or retrofit for new purposes. Had the EIR found a significant impact, which it should have, in consideration of the points in previous sections of this comment letter, it would need to discuss reasonable alternatives including, but not limited to, renovation of the building rather than the proposed demolition, or refurbishing or recycling of existing materials to meet future needs.

B-23

[4] Preservation Green Lab. "The Greenest Building: Quantifying the Environmental Value of Building Reuse," 2011, p. 66. "[R]ehabilitation and retrofit still outperform new construction, yielding fewer impacts over a 75-year lifespan (see Figures 11 – 14). This is true for all impact categories and building types, except the warehouse-to-multifamily conversion case study." https://living-future.org/wp-content/uploads/2016/11/The_Greenest_Building.pdf

[5] Preservation Green Lab. "The Greenest Building: Quantifying the Environmental Value of Building Reuse," 2011, p. 72. "In particular, renovated buildings with fewer material inputs have the potential to realize the greatest short-term carbon savings." https://living-future.org/wp-content/uploads/2016/11/The_Greenest_Building.pdf

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Conclusion

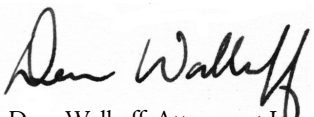
CEQA requires the City to mitigate all of the Project's significant GHG impacts to the fair share extent when, as here, the lead agency has concluded that the Project's GHG emissions will be significant and unavoidable. But the City failed to require this, although there are feasible mitigation measures that should be considered, such as solar panels on site, or purchasable offsets. The lead agency has not met its burden of showing that such measures are infeasible, and therefore the DEIR should be amended to reflect all feasible mitigation to mitigate all the Project's "fair share" of GHG emissions, as well as analyze project alternatives which would reduce the GHG impact of demolishing existing structures without utilizing the materials.

B-24

Please put me on the interest list to receive updates about the progress of this project.

B-25

Sincerely,



Dean Wallraff, Attorney at Law
Executive Director, Advocates for the Environment

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RESPONSES TO COMMENT LETTER B:
Advocates for the Environment

B-1 Advocates for the Environment states their understanding of the proposed Project and the Project's location. This comment does not present substantive comment on the DEIR's analyses and no revisions to the DEIR are required in response to this general comment.

B-2 Advocates for the Environment provides information regarding GHG emissions and mentions example projects that have aspired to achieve net-zero emissions. The commenter states that the City should therefore adopt net-zero as the Project's GHG significance threshold. These example projects are not comparable to the proposed Project because they are large projects, in different geographic markets, with different environmental characteristics, and with different use characteristics. For example, the Tejon Ranch project covers over 422 square miles of land, includes 11 million square feet of planned retail and industrial space and 19,300 planned homes on formerly undeveloped land.[1] In comparison, the proposed Project entails the proposed redevelopment of a 13.49-acre property in an urban setting that has been developed with a manufacturing use since the 1950's.

As provided in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, the City of Whittier does not have an adopted threshold of significance for GHG emissions, and has the discretion to select an appropriate significance criterion, based on substantial evidence. The City conservatively uses the South Coast Air Quality Management District (SCAQMD) GHG significance threshold of 3,000 MTCO2e per year for all projects (instead of 10,000 MTCO2e per year for industrial projects), which is based on a 90 percent emission "capture" rate methodology. The Project's design includes features that would maximize energy efficiency and reduce Project-related GHG emissions including but not limited to compliance with the provisions mandated by the California Green Building Standards Code (CALGreen). The commenter suggests that the Project go beyond the mandatory measures of CALGreen and incorporate voluntary measures as mitigation. CALGreen's Title 24 goes through an update and approval process every three years by the California Energy Commission, and the changes are subsequently ratified by the California Building Standards Commission to become State law. The most recent approved updates consist of the 2022 Energy Efficiency Standards and 2022 CALGreen Code, which became effective on January 1, 2023. Each update of Title 24 ensures a higher level of energy efficiency than the prior version. The State assures that CALGreen standards provide a high level of energy efficiency. Advocates for the Environment does not provide substantial evidence that exceeding CALGreen Title 24 requirements would result in any demonstrable, quantifiable reduction in the Project's GHG emissions.

Additionally, as discussed in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, the Project would not conflict with the 2022 CARB Scoping Plan, which identifies the State's progress towards the statutory 2030 target, while providing a path towards carbon neutrality and reduced greenhouse gases emissions by 85% below 1990 levels by 2045.

[1] https://tejonranch.com

Further, a majority of the Project's GHG emissions would be produced by mobile sources, which are regulated by State and federal fuel standards, and tailpipe emissions standards are outside of the control and authority of the City, the Project Applicant, and future Project building occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City) in order to be implemented. No other mobile source mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact.

B-3 Advocates for the Environment discusses the Project-related GHG emissions, states that no mitigation was proposed to reduce the significant impact, and states that there are other readily available mitigation measures. As stated in Response B-2, above, because a majority of the Project's GHG emissions would be produced by mobile sources, which are regulated by State and federal fuel standards and tailpipe emissions standards, mobile source emissions are outside of the control and authority of the City, the Project Applicant, and future Project building occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City) in order to be implemented. No other mobile source mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact. Refer to Response I-42 for responses to recommended best practices published by the California Department of Justice. Also refer to subsequent responses to this Comment Letter B related to specific mitigation measures recommended by the commenter.

B-4 Advocates for the Environment attempts to quantify the Project's lifetime GHG emissions and recommends using this as a starting point from which to subtract the effect of non-offset mitigation measures, before implementing offset purchases. First, the commenter incorrectly states that the Project's annual GHG emissions will be 20,504 MTCO2e, when, as shown in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, the Project's annual GHG emissions are calculated to be 5,710.83 MTCO2e. As stated in Response B-3, no other mobile source mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations and that have a proportional nexus to the Project's level of impact. Refer to Response I-42 for responses to recommended best practices published by the California Department of Justice. Also refer to subsequent responses to this Comment Letter B related to specific mitigation measures recommended by the commenter.

Advocates for the Environment implies that offset purchases should be used to mitigate the Project's GHG emissions to zero. Although it is possible to purchase carbon offsets, recent Court of Appeal decisions have cast considerable doubt on the use of such offsets to mitigate GHG impacts from land use development projects. In *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467, the Court of Appeal invalidated a mitigation measure that required the purchase of offsets from a "CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard." (*Id*. at 510.) Although the court insisted its decision "should not be construed as blanket prohibition on using carbon offsets" to mitigate GHG emissions under CEQA, it found numerous flaws with the measure at issue and failed to provide a clear roadmap

for how to craft a similar valid measure. The court also declined to express an opinion on a number of issues, including whether offsets could potentially be used to mitigate more than eight percent of a project's emissions and the extent to which out-of-county offsets could be used. (*Id*. at 503, 513, n. 27.) In light of such uncertainty, carbon offsets are not a feasible method for mitigating the Project's GHG emissions.

In addition, it should be noted that the vast majority of emissions that would be generated by the Project, including mobile emissions and energy emissions, are already subject to the California Cap and Trade program, which places an economy-wide "cap" on major sources of GHG emissions, such as refineries, power plants, industrial facilities and transportation fuels. For example, "Fuel suppliers are responsible for the carbon pollution from fuels under the Cap-and-Trade Program" and thus must acquire "allowances" to cover all carbon pollution from such fuels.[2] They may also purchase certain approved offsets to fulfill up to eight percent of their compliance obligation. (*See Golden Door* at 485.) Given that most of the GHG emissions that would be generated by the proposed Project are covered by Cap and Trade and thus are already subject to a regulatory program that includes offsets, it would be inappropriate and infeasible to use offsets to mitigate such emissions. Rather, mitigation measures should focus on reducing emissions from the Project.

B-5 Advocates for the Environment makes a general statement that there are other readily available mitigation measures to further reduce the Project's GHG emissions. Refer to Response I-42 for responses to recommended best practices published by the California Department of Justice. Also refer to subsequent responses to this Comment Letter B related to specific mitigation measures recommended by the commenter. GHG emissions from Project-related operational activities, which as previously stated, are regulated by State and federal fuel standards and tailpipe emissions standards and are outside of the control and authority of the City, the Project Applicant, and future Project building occupants.

B-6 Advocates for the Environment disagrees that all mobile source GHG emissions are not under the jurisdictional authority of the City of Whittier to regulate, generally stating that the City has the capacity to control emissions directly and indirectly related to the Project by requiring best available emissions control technology (BACT) on construction vehicles. As provided in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, GHG emissions from Project-related construction activities only accounts for 25.83 MTCO2e of the Project's total 5,710.83 MTCO2e emissions. The remainder of the GHG emissions are from Project-related operational activities, which as previously stated, are regulated by State and federal fuel standards and tailpipe emissions standards and are outside of the control and authority of the City, the Project Applicant, and future Project building occupants.

In response to this comment, the following mitigation measure is added to the Final EIR. The mitigation measure further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

[2] California Air Resources Board, FAQ for Fuel Purchasers. https://ww2.arb.ca.gov/sites/default/files/cap-and-trade/guidance/faq_fuel_purchasers.pdf

MM 4.3-1 Construction contractors shall assure that: a) construction equipment greater than 150 horsepower achieves or is equivalent to or better than Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards, or Tier 3 standards if Tier 4 equipment is not available at the time of construction; and b) construction equipment over 50 horsepower is fitted with best available control technology (BACT) devises, if technically feasible and if the BACT devices can be reasonably acquired by the contractor. These requirements shall be specified in bid documents issued to prospective contractors. Prior to grading and building permit issuance, the construction contractor(s) shall submit an equipment list to the City of Whittier confirming that the equipment used is compliant. The contractor(s) also shall keep a copy of equipment list, with CARB tier levels noted, BACT devises noted, and any required CARB or SCAQMD operating permits required, on the construction site in a location available for the City or City designee for inspection upon request.

B-7 Advocates for the Environment suggests that the City could require vehicle fleets to be powered by alternative fuel types and require that the applicant's lease agreements included provisions to limit the use of heavy-duty diesel trucks or require that the tenant's vehicle fleet use non-diesel fuels such as gasoline, ethanol, or biofuels. As stated on DEIR p. 4.3-20: "As advancements in vehicle technology progress, it is expected that a higher percentage of vehicles including trucks will be electric-powered than occurs today. However, until vehicle technology advances and electric trucks are more commonly commercially available with enough power to haul heavy loads over long distances, it is reasonable to assume that the truck fleet that will access the Project Site will be primarily diesel-powered." Given current technology, it is not practical or feasible to limit the use diesel powered trucks from accessing the Project site. However, the following mitigation measures have been added to the FEIR. The mitigation measures further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

MM 4.3-2 The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) are recommended to be powered by electric or other zero-emission technology. An appropriate number of charging stations for electric equipment shall be accommodated on the site, as determined by the City of Whittier through the building permit plan check process.

MM 4.3-3: In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit

and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program. The City shall be provided with a copy of the transmitted information, for verification, as a condition of building occupancy permits.

B-8 Advocates for the Environment suggests that the applicant enter into a contract with future tenants to use zero-emission commercial vehicles by maintaining a fully-electric or hybrid vehicle fleet powered by solar panels on the site. The City finds this suggestion to be infeasible for the reasons given in Response B-7.

B-9 Advocates for the Environment asserts that there are mitigation measures available for non-mobile source emissions including solar panels, solar water heaters, and automatic light switches, that could be imposed on the Project to reduce GHG emissions. A solar ready roof, efficient electric water heaters, and automatic lights are required by CALGreen. CALGreen's Title 24 goes through an update and approval process every three years by the California Energy Commission, and the changes are subsequently ratified by the California Building Standards Commission to become State law. The most recent approved updates consist of the 2022 Energy Efficiency Standards and 2022 CALGreen Code, which became effective on January 1, 2023. Each update of Title 24 ensures a higher level of energy efficiency than the prior version. The State assures that CALGreen standards provide a high level of energy efficiency. Advocates for the Environment does not provide substantial evidence that exceeding CALGreen Title 24 requirements would result in any demonstrable, quantifiable reduction in the Project's GHG emissions.

B-10 Advocates for the Environment suggests that the City require the Project Applicant to buy clean power. As explained in Response B-4, energy emissions, are already subject to the California Cap and Trade program, which places an economy-wide "cap" on major sources of GHG emissions, such as refineries, power plants, industrial facilities and transportation fuels. For example, "Fuel suppliers are responsible for the carbon pollution from fuels under the Cap-and-Trade Program" and thus must acquire "allowances" to cover all carbon pollution from such fuels. They may also purchase certain approved offsets to fulfill up to eight percent of their compliance obligation. (See Golden Door at 485.) Given that most of the GHG emissions that would be generated by the proposed Project are covered by Cap and Trade and thus are already subject to a regulatory program that includes offsets, it would be inappropriate and infeasible to use offsets to mitigate such emissions. Rather, mitigation measures should focus on reducing emissions from the Project.

B-11 Advocates for the Environment asserts that since CEQA allows offsets as a mitigation measure, the conclusion of the DEIR that further mitigation would be infeasible is not supported by substantial evidence. As explained in Response B-4, carbon offsets are not a feasible method for mitigating the Project's GHG emissions. Mitigation measures MM 4.3-1 through MM 4.3-10 have been added to the FEIR to further reduce the Project's GHG emissions.

B-12 Advocates for the Environment suggests that the Project go beyond the mandatory measures of CALGreen and incorporate voluntary measures as mitigation. As explained in Responses B-4 and B-9, Advocates for the Environment does not provide substantial evidence that exceeding CALGreen Title 24 requirements would result in any demonstrable, quantifiable reduction in the Project's GHG emissions. Regardless, Mitigation Measures MM 4.3-1 through MM 4.3-10 have been added to the FEIR to further reduce the Project's GHG emissions.

B-13 Advocates for the Environment suggest that the City should require the Project Applicant to implement a Transportation Demand Management (TDM) Program. The addition of a mitigation measure is not needed because SCAQMD Rule 2022 requires employers with over 250 or more employees at a worksite, on a full-time basis, to establish commuter programs to meet the designated emission reduction target set by SCAQMD. This program provides employers with a menu of options to reduce mobile source emissions generated from employee commutes. Options include Emissions Reduction Strategies and Trip Reduction Strategies. An Employer subject to this Rule shall annually register with the Air District to implement an emissions reduction program that obtains emission reductions equivalent to a Worksite specific Emission Reduction Target (ERT) specified for the compliance year. The annual ERT is required to be determined for VOC, NOx, and CO, based on Employee Emission Reduction Factors.

In addition, the Project is required to comply with all applicable provisions of the City of Whittier Municipal Code related to the circulation system, including, but not limited to, Chapter 12.24 (Complete Streets Program, which promotes safe, convenient and comfortable routes for walking, bicycling and public transportation) and Chapter 18.67 (Transportation Demand Management, which promotes a reduction in vehicle trips associated with new development). The Whittier Public Works Department reviewed the proposed Development Review Permit No. 21-0065 to confirm adherence with Whittier Municipal Code Chapter 18.67 Transportation Demand Management. Also, the City of Whittier offers all City residents discounted transit passes as part of citywide TDM. See https://www.whittierprcs.org/transit for details on the transit pass discount program.

B-14 Advocates for the Environment makes another general statement that there are other available mitigation measures to reduce the Project's GHG emissions. Refer to Response I-42 for responses to recommended best practices published by the California Department of Justice. Mitigation measures MM 4.3-1 through MM 4.3-10 have been added to the FEIR to further reduce the Project's GHG emissions. Because the emission reductions that will be achieved by the mitigation measures added to the Final EIR are difficult to mathematically quantify at the conceptual level of design before construction-level plans are developed, the EIR continues to conclude that the Project's GHG emissions impact is significant and unavoidable.

B-15 Advocates for the Environment suggests adding rooftop solar panels to the proposed building and building canopies in the parking lots to install solar panels on them as mitigation. In accordance with CALGreen, the proposed building's roof will be solar-ready. A solar-ready roof is a mandatory regulatory requirement and it is not necessary to add a mitigation measure that is duplicative of a

regulatory mandate. The extent of solar panel installation on the roof would be determined at a later time and would be subject to the electrical power needs of the building tenant.

B-16 Advocates for the Environment suggests additional mitigation measures such as requiring emergency generators to be powered by clean energy; entering into agreements with future tenants to enroll in the U.S. Environmental Protection Agency's SmartWay program for trucking carries; using electric equipment and vehicles; and strictly prohibit idling on the premises. Regarding power for an emergency generator should a generator be located on the Project site, given that the purpose of an emergency generator is to supply power to the site in the event of an emergency (loss of power from the electrical grid), it is not feasible to require that the emergency generator be powered with clean energy (electric). Emergency generators to fulfill their intended purpose need to be powered by fuel. In response to the commenter's other suggestions, the following Mitigation measures have been added to the Final EIR.

MM 4.3-2 The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) are recommended to be powered by electric or other zero-emission technology. An appropriate number of charging stations for electric equipment shall be accommodated on the site, as determined by the City of Whittier through the building permit plan check process.

MM 4.3-3: In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program. The City shall be provided with a copy of the transmitted information, for verification, as a condition of building occupancy permits.

MM 4.3-9 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the

CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.

B-17 Advocates for the Environment proposes that the Project incorporate electric vehicle/truck charging stations proportionate to the number of loading dock stations. The Project would provide 42 parking stalls with electric vehicle (EV) charging stations, which meets the required 10 percent of the total actual parking stalls provided for the Project. In addition, the following Mitigation measure has been added to the Final EIR:

MM 4.3-4: The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed:

a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks.

B-18 Advocates for the Environment states that the City should require the Applicant to purchase carbon offsets to mitigate the Project's GHG emissions to zero. The commenter further asserts, without elaboration, that "[t]here are numerous offsets available for purchase that could negate the Project's significant GHG emissions." As explained in Response B-4, recent Court of Appeal decisions have cast considerable doubt on the use of such offsets to mitigate GHG impacts from land use development projects. In *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal.App.5th 467, the Court of Appeal invalidated a mitigation measure that required the purchase of offsets from a "CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard." (*Id*. at 510.) Although the court insisted its decision "should not be construed as blanket prohibition on using carbon offsets" to mitigate GHG emissions under CEQA, it found numerous flaws with the measure at issue and failed to provide a clear roadmap for how to craft a similar valid measure. The court also declined to express an opinion on a number of issues, including whether offsets could potentially be used to mitigate more than eight percent of a project's emissions and the extent to which out-of-county offsets could be used. (*Id*. at 503, 513, n. 27.) In light of such uncertainty, carbon offsets are not a feasible method for mitigating the Project's GHG emissions.

B-19 Advocates for the Environment disagrees with the DEIR's conclusion under GHG Threshold b that the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs and believes that the Project is inconsistent with SB 32 and the CARB 2017 Scoping Plan, and requests analysis of consistency with Executive Order (EO) B-55-18. The

commenter provides no evidence that implementation of the Project would interfere with federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under EO S-3-05, EO B-30-15, or SB 32. EO B-55-18 establishes a carbon neutrality goal for the state of California by 2045 and sets a goal to maintain net negative emissions thereafter. The Executive Order also directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. As discussed in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, the Project would not conflict with the 2022 CARB Scoping Plan, which identifies the State's progress towards the statutory 2030 target, while providing a path towards carbon neutrality and reduced greenhouse gases emissions by 85% below 1990 levels by 2045.

B-20 Advocates for the Environment states that the DEIR should provide further analysis and demonstrate adherence to measures provided in the 2022 CARB Scoping Plan to demonstrate consistency with this plan. Analysis of the Project's consistency with the 2022 CARB scoping Plan is provided in DEIR Subsection 4.3, *Greenhouse Gas Emissions*. As stated in the DEIR, implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets.

B-21 Advocates for the Environment asserts that the DEIR should include a discussion of consistency with EO B-55-18, believing the Project is inconsistent with this EO, and would therefore have a significant impact under GHG Threshold b. As explained in Response B-19, EO B-55-18 establishes a carbon neutrality goal for the state of California by 2045 and sets a goal to maintain net negative emissions thereafter. The Executive Order also directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. As discussed in DEIR Subsection 4.3, *Greenhouse Gas Emissions*, the Project would not conflict with the 2022 CARB Scoping Plan, which identifies the State's progress towards the statutory 2030 target, while providing a path towards carbon neutrality and reduced greenhouse gases emissions by 85% below 1990 levels by 2045.

B-22 Advocates for the Environment makes a summary statement repeating its assertion that the DEIR did not demonstrate consistency with all applicable plans, polices, and regulations related to GHG emissions reduction. Refer to Response B-19, which explains that the Project does not conflict with applicable plans, policies, and regulations.

B-23 Advocates for the Environment states that the alternatives discussion should include renovation of six existing buildings rather than demolition. Advocates for the Environment again states that the DEIR should have found a significant GHG impact and thus should discuss renovation of the buildings rather than the proposed demolition. The commentor incorrectly states that there are six existing buildings on the Project Site. The Project Site has three attached buildings having a total building footprint area

of 213,430 s.f. The commenter also overlooked the DEIR's alternatives analysis, which includes the alternative requested by the commenter. One of the alternatives in DEIR Section 6.0, *Alternatives*, is the Building Reuse Alternative, which considers a scenario in which the existing buildings would remain on the Project Site and be renovated and reused. The significant and unavoidable cumulatively-considerable impact associated with GHG emissions would be similar to the Project but would be slightly increased because energy use would be greater by relying on 70+ year old building systems instead of energy efficient systems required under the current version of the CALGreen. Impacts associated with hazards and hazardous resources also would be increased under this alternative because complete soil remediation would not occur across the site, soil remediation under the building would not occur at all, and retrofitting of a soil vapor barrier under the existing building would not be as effective as installing a soil vapor barrier under a new building. Because the Building Reuse Alternative would retain the existing 213,430 s.f. buildings rather than constructing the proposed 295,959 s.f. building, the build-out potential of the Project Site for employment-generating uses would not be maximized; therefore, this Alternative would not meet the Project's objectives.

B-24 Advocates for the Environment asserts that the DEIR fails to mitigate the Project's significant GHG impacts to its fair share extent and that the DEIR should be revised to include additional, feasible mitigation as well as analyze project alternatives which would reduce the GHG impact of demolishing existing structures without utilizing the materials. Additional mitigation measure have been added to the FEIR and are listed as Mitigation Measures MM 4.3-1 through MM 4.3-10. The DEIR did include a Building Reuse Alternative, as explained in Response B-23.

B-25 Advocates for the Environment requests to be added to the Project's interest list to receive Project updates. The City acknowledges this request and affirms that Advocates of the Environment is on the City's public notification list for future Project-related public notices.

COMMENT LETTER C

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401
www.fire.lacounty.gov

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KATHRYN BARGER, FIFTH DISTRICT

August 21, 2023

RECEIVED
AUG 24 2023
Community Development

Crystal Arroyo
13230 Penn Street
Whittier, CA 90602

Dear Ms. Arroyo:

THE NOTICE OF COMPLETION OF DRAFT EIR, "WHITTIER BOULEVARD BUSINESS CENTER", PROPOSES THE DEVELOPMENT OF A 13.49-ACRE SITE THAT INCLUDES A 295,959 SQUARE FOOT INDUSTRIAL BUILDING, DRIVE AISLES, AND PARKING AREAS, CITY OF WHITTIER, FFER2023003970 C-1

The Notice of Completion of Draft EIR reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION: C-2

We have no comments.

For any questions regarding this response, please contact Kien Chin, at (323) 881-2404 or Kien.Chin@fire.lacounty.gov.

LAND DEVELOPMENT UNIT: C-3

The Land Development Unit is reviewing the proposed "WHITTIER BOULEVARD BUSINESS CENTER" Project for access and water system requirements. The Land Development Unit comments are only preliminary requirements. Specific fire and life safety requirements will be addressed during the review for building and fire plan check phases. There may be additional requirements during this time.

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	CARSON	EL MONTE	INGLEWOOD	LAWNDALE	PICO RIVERA	SIGNAL HILL
ARTESIA	CERRITOS	GARDENA	IRWINDALE	LOMITA	POMONA	SOUTH EL MONTE
AZUSA	CLAREMONT	GLENDORA	LA CANADA-FLINTRIDGE	LYNWOOD	RANCHO PALOS VERDES	SOUTH GATE
BALDWIN PARK	COMMERCE	HAWAIIAN GARDENS	LA HABRA	MALIBU	ROLLING HILLS	TEMPLE CITY
BELL	COVINA	HAWTHORNE	LA MIRADA	MAYWOOD	ROLLING HILLS ESTATES	VERNON
BELL GARDENS	CUDAHY	HERMOSA BEACH	LA PUENTE	NORWALK	ROSEMEAD	WALNUT
BELLFLOWER	DIAMOND BAR	HIDDEN HILLS	LAKEWOOD	PALMDALE	SAN DIMAS	WEST HOLLYWOOD
BRADBURY	DUARTE	HUNTINGTON PARK	LANCASTER	PALOS VERDES ESTATES	SANTA CLARITA	WESTLAKE VILLAGE
CALABASAS		INDUSTRY		PARAMOUNT		WHITTIER

Crystal Arroyo
August 21, 2023
Page 2

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants.

C-3 (CONT.)

ACCESS REQUIREMENTS

1. The proposed development will require multiple ingress/egress access for the circulation of traffic, and emergency response issues.

2. All on-site Fire Department vehicular access roads shall be labeled as "Private Driveway and Fire Lane" on the site plan along with the widths clearly depicted on the plan. Labeling is necessary to assure the access availability for Fire Department use. The designation allows for appropriate signage prohibiting parking.

   a. The Fire Apparatus Access Road shall be cross-hatch on the site plan, with the width clearly noted on the plan.

3. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than the prescribed width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.

4. Fire Apparatus Access Roads must be installed and maintained in a serviceable manner prior to and during the time of construction.

5. The Fire Apparatus Access Roads and designated fire lanes shall be measured from flow line to flow line.

C-4

6. The dimensions of the approved Fire Apparatus Access Roads shall be maintained as originally approved by the fire code official.

7. Provide a minimum unobstructed width of 28 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building when the height of the building above the lowest level of the Fire Department vehicular access road is more than 30 feet high, or the building is more than three stories. The access roadway shall be located a minimum of 10 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

8. If the Fire Apparatus Access Road is separated by island, provide a minimum unobstructed width of 20 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building.

Crystal Arroyo
August 21, 2023
Page 3

9. Dead-end Fire Apparatus Access Roads in excess of 150 feet in length shall be provided with an approved Fire Department turnaround. Include the dimensions of the turnaround, with the orientation of the turnaround shall be properly placed in the direction of travel of the access roadway.

10. Fire Department Access Roads shall be provided with a 32-foot centerline turning radius. Indicate the centerline, inside and outside turning radii for each change in direction on the site plan

11. Fire Apparatus Access Roads shall be designed and maintained to support the imposed load of fire apparatus weighing 75,000lbs., and shall be surfaced so as to provide all-weather driving capabilities. Fire apparatus access roads having a grade of 10 percent or greater shall have a paved or concrete surface.

12. A minimum 5-foot-wide approved firefighter access walkway leading from the fire department access road to all required openings in the building's exterior walls shall be provided for firefighting and rescue purposes. Clearly identify firefighter walkway access routes on the site plan. Indicate the slope and walking surface material. Clearly show the required width on the site plan.

13. Fire Apparatus Access Roads shall not be obstructed in any manner, including by the parking of vehicles, or the use of traffic calming devices, including but not limited to, speed bumps or speed humps. The minimum widths and clearances established in Fire Code Section 503.2.1 shall be maintained at all times.

C-4 (CONT.)

WATER SYSTEM REQUIREMENTS

1. All fire hydrants shall measure 6"x 4"x 2-1/2" brass or bronze, conforming to current AWWA standard C503 or approved equal, and shall be installed in accordance with the County of Los Angeles Fire Code.

2. The development may require fire flows up to 4,000 gallons per minute at 20 per square inch residual pressure for up to a four-hour duration. Final fire flows will be based on the size of buildings, the installation of an automatic fire sprinkler system, and type(s) of construction used.

3. The fire hydrant spacing shall be every 300 feet for both the public and the on-site hydrants. The fire hydrants shall meet the following requirements:

   a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.

   b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.

   c. Additional hydrants will be required if hydrant spacing exceeds specified distances.

C-5

4. All private on-site fire hydrants shall be installed, tested and approved prior to building occupancy.

   a. Plans showing underground piping for private on-site fire hydrants shall be submitted to the Sprinkler Plan Check Unit for review and approval prior to installation.

5. All required public and private on-site fire hydrants shall be installed and tested Prior to the beginning of construction.

6. An approved automatic fire sprinkler system may be required for the proposed buildings within this development.

C-5 (CONT.)

For any questions regarding the report, please contact FPEA Claudia Soiza at (323) 890-4243, or at Claudia.soiza@fire.lacounty.gov

C-6

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The County of Los Angeles Fire Department, Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Matthew Ermino at (818) 890-5719.

C-7

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department acknowledges that the Cal-EPA Los Angeles Regional Water Quality Control Board is the designated regulatory environmental oversight agency for this project. HHMD has no additional comments for the project at this time.

Please contact HHMD Hazardous Materials Specialist III, Jennifer Levenson at (323) 890-4114 or Jennifer.Levenson@fire.lacounty.gov if you have any questions.

C-8

Very truly yours,

RONALD M. DURBIN, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

RMD:pg

RESPONSES TO COMMENT LETTER C:
County of Los Angeles Fire Department

C-1 The County of Los Angeles Fire Department states their understanding of the proposed Project and acknowledges reviewing the DEIR. This comment does not present substantive comment on the DEIR's analysis and no revisions to the DEIR are required in response to this general comment.

C-2 The County of Los Angeles Fire Department states that the Planning Division has no comments and provides contact information for this division. This comment is acknowledged. No further response is required.

C-3 The County of Los Angeles Fire Department states that the Land Development Unit has reviewed the Project and states that comments provided are preliminary requirements. This comment is acknowledged and no further response is required.

C-4 The County of Los Angeles Fire Department Land Development Unit provides a list of preliminary requirements regarding access. The Project would comply with all applicable code and ordinance requirements regarding access. Details of the Project's site design and configuration are provided in the Project Description, Section 3.4.3 of the EIR.

C-5 The County of Los Angeles Fire Department Land Development Unit provides a list of preliminary requirements regarding water system requirements. The Project would comply with all applicable code and ordinance requirements regarding water system requirements. Details of the Project's water service and supply are provided in Subsection 5.4.13, Utilities and Service Systems, of the EIR.

C-6 The County of Los Angeles Fire Department Land Development Unit provides contact information for the Land Development Unit. This comment is acknowledged.

C-7 The County of Los Angeles Fire Department states that the Forestry Division has no comments and provides contact information for this division. This comment is acknowledged.

C-8 The County of Los Angeles Fire Department states that the Health Hazardous Materials Division has no comments and provides contact information for this division. This comment is acknowledged.

COMMENT LETTER D

Department of Toxic Substances Control

Yana Garcia
Secretary for
Environmental Protection

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

August 29, 2023

Ellen Fitzgerald
Principal Planner – City of Whittier
13230 Penn Street
Whittier, CA 90601
efitzgerald@cityofwhittier.org

RE: DRAFT ENVIRONMENTAL IMPACT REPORTY FOR THE WHITTIER BOULEVARD BUSINESS CENTER, DATED JULY 28 2023 SCH# 2022120346

Dear Ellen Fitzgerald:

The Department of Toxic Substances Control (DTSC) received a Draft Environmental Impact Report (DEIR) for the Whittier Boulevard Business Center. Based on our review, DTSC requests consideration of the following comments: D-1

1. DTSC recommends that an environmental review, such as a Phase I Environmental Site Assessment and/or Preliminary Environmental Assessment, be conducted to determine whether there has been or may have been a release or threatened release of a hazardous material, or whether a naturally occurring hazardous material is present based on reasonably available information about the property and the areas in its vicinity. Such an environmental review should generally be conducted as part of the California Environmental Quality Act (CEQA) process. The property abuts a known contaminated property (Tool & Jig/Hard Chrome located at 7635 Baldwin Place, Whittier), is situated across Whittier Boulevard south of another property known to be contaminated (Sunrise D-2 D-3

Properties located at 12353 Whittier Boulevard) and is located in an industrial area in close proximity to the Omega Superfund site located at 12504 Whittier Boulevard. The property owner can submit an application for State guidance and oversight.

D-3 (CONT.)

2. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition, and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*

D-4

3. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material* webpage.

D-5

DTSC appreciates the opportunity to comment on the Whittier Boulevard Business Center DEIR. If you have any questions, please respond to this letter or via email for additional guidance.

Sincerely,

Dave Kereazis

D-6

Dave Kereazis
Associate Environmental Planner
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control

Ellen Fitzgerald
August 29, 2023
Page 3

cc: (via email)

Governor's Office of Planning and
Research State Clearinghouse
State.Clearinghouse@opr.ca.gov

Laura Radke
Senior Environmental Scientist (Specialist)
SMRP – Schools and Brownfields
Department of Toxic Substances Control
Laura.Radke@dtsc.ca.gov

Ms. Tamara Purvis
Associate Environmental Planner
CEQA Unit - HWMP
Department of Toxic Substances Control
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Scott Wiley
Associate Governmental Program Analyst
CEQA Unit – HWMP
Department of Toxic Substances Control
Scott.Wiley@dtsc.ca.gov

D-6
(CONT.)

RESPONSES TO COMMENT LETTER D:
California Department of Toxic Substances Control

D-1 In this introductory comment, the California Department of Toxic Substances Control (DTSC) acknowledges reviewing the DEIR. The introductory comment is noted. No further response is required.

D-2 DTSC recommends that a Phase I Environmental Site Assessment (ESA) be conducted as part of the CEQA process. A Phase I ESA, a Soil and Soil Vapor Investigation, and a Soil Management Plan were prepared for the Project. These reports were included in the DEIR as Technical Appendices E1, E2, and E3, respectively.

D-3 DTSC states that the Project abuts a known contaminated property and is located in the vicinity of two others. DTSC states that the property owner can submit an application for State guidance and oversight and provides a website link for reference. As discussed in DEIR, Subsection 4.4, *Hazards and Hazardous Materials*, for the Phase I ESA, regulatory agency database information was obtained from a standard radius Site Assessment (ASTM) Report by Environmental Data Resources, Inc. (EDR). It was found that the Omega Chemical facility and the Sunrise Properties are believed to have had releases of chlorinated solvents that have comingled and migrated below the Project Site. Mandatory compliance with regulatory requirements and the mitigation measures provided in the DEIR will ensure that the Project Site's associated Recognized Environmental Conditions (RECs), soil contamination, and soil vapors are properly remediated during construction.

D-4 DTSC states that if buildings or structures are to be demolished as part of the project, surveys should be conducted for the presence of the listed chemicals and provides a link to the DTSC guidance document for reference. Implementation of the Project would include demolition of the three existing structures on the Project Site. Mandatory compliance with regulatory requirements and the mitigation measures provided in the DEIR, will ensure that the Project Site's associated Recognized Environmental Conditions (RECs), soil contamination, and soil vapors are properly remediated during construction.

D-5 DTSC states that if importation of soil is anticipated, sampling should be conducted to ensure soil is free of contamination and provides a link to the DTSC clean fill advisory for reference. According to the Project's grading plans, cut and fill of soils will balance at 26,761 cubic yards (CY) and no import or export of soils will occur.

D-6 DTSC closes the comment letter and provides contact information. No further response is required.

Comment Letter E

CALIFORNIA AIR RESOURCES BOARD

Gavin Newsom, Governor
Yana Garcia, CalEPA Secretary
Liane M. Randolph, Chair

September 8, 2023

Ellen Fitzgerald
Principal Planner
City of Whittier
13230 Penn Street
Whittier, California 90601
efitzgerald@cityofwhittier.org

Sent via email

Dear Ellen Fitzgerald:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Whittier Boulevard Business Center Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2022120346. The Project proposes the construction and operation of one industrial building totaling 295,959 square feet. The proposed industrial building would be designed to accommodate uses such as manufacturing, assembly, research and development, light industrial, and related uses. The proposed Project would result in 829 daily vehicle trips along local roadways, including 169 daily heavy-duty truck trips.[1] The Project is proposed within portions of the City of Whittier (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes. E-1

If approved, the Project will expose nearby communities to elevated levels of air pollution beyond the existing baseline emissions at the Project site. Residences are located west, and east of the Project site. With the closest residence located within 50 feet of the Project's western boundary. In addition to residences, Saint Mary's Catholic School and Whittier High School are located within a half a mile from the Project site. These communities are surrounded by existing toxic diesel particulate matter (diesel PM) emission sources, which include many existing industrial facilities surrounding the Project site, and vehicular traffic along State Route 72. Due to the Project's proximity to residences and schools already burdened by multiple sources of air pollution, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project. E-2

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities with high exposure burdens, like those in which the Project is located. Diesel PM emissions generated during the construction and operation of the Project would negatively impact neighboring communities,

[1] City of Whittier. Wittier Boulevard Business Center Project Draft Environmental Impact Report. Appendix I2. Table 1.

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which are already impacted by air pollution from existing industrial facilities surrounding the Project site, and vehicular traffic along State Route 72.

E-2 (CONT.)

Through its authority under Health and Safety Code section 39711, the California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 4.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 10 percent for Pollution Burden[2] and is considered a disadvantaged community. The City must ensure that the Project does not adversely impact neighboring disadvantaged communities.

Industrial facilities, like the facilities described in the Project, can result in high volumes of heavy-duty diesel truck traffic, and operation of on-site equipment (e.g., forklifts and yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.[3] Governor Gavin Newsom signed Executive Order N-79-20 on September 23, 2020. The executive order states: "It shall be a goal of the State that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It shall be a further goal of the State that 100 percent of medium and heavy-duty vehicles in the State be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. It shall be further a goal of the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible." The executive order further directs the development of regulations to help meet these goals. To ensure that lead agencies, like the Project, stay in step with evolving scientific knowledge to protect public health from adverse air quality and greenhouse gas impacts from the transportation sector, which serves as the basis of the Governor's Executive Order N-79-20, CARB staff urges the City to plan for the use of zero-emission technologies within the Project area recommended in this letter.

E-3

[2] Pollution Burden represents the potential exposure to pollutants and the adverse environmental conditions caused by pollution.

[3] With regard to greenhouse gas emissions from this project, CARB has been clear that local governments and project proponents have a responsibility to properly mitigate these impacts. CARB's guidance, set out in detail in the Scoping Plan issued in 2017, makes clear that in CARB's expert view, local mitigation is critical to achieving climate goals and reducing greenhouse gases below levels of significance.

The Final Environmental Impact Report Should Restrict the Operation of Transport Refrigeration Units within the Project Area

Chapter 3.4.4 (Operational Characteristics) of the DEIR states that the proposed industrial build, "is not proposed to be refrigerated."[4] Consequently, air pollutant emissions associated with cold storage operation were not included in the DEIR. Warehouses used for cold storage would result in an increase in the number trucks and trailers equipped with transport refrigeration units (TRUs)[5] traveling along local roadways. TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within nearby communities. Should the Project later include cold storage uses, residences near the Project site could be exposed to significantly higher levels of toxic diesel PM and nitrogen oxides (NO_x), and greenhouse gases than trucks and trailers without TRUs. To ensure TRUs[6] will not operate within the Project site without first quantifying and mitigating their potential impacts, CARB urges the City to include one of the following design measures in the Final Environmental Impact Report (FEIR):

- A Project design measure requiring contractual language in tenant lease agreements that prohibits tenants from operating TRUs within the Project-site; or
- A condition requiring a restrictive covenant over the parcel that prohibits the applicant's use of TRUs on the property, unless the applicant seeks and receives an amendment to its conditional use permit allowing such use.

E-4

The Final Environmental Impact Report Should Include More Mitigation Measures to Further Reduce the Project's Air Pollution Emissions

The DEIR concluded that the Project would not exceed the South Coast Air Quality Management District's (SCAQMD) significance thresholds and potential impacts are expected to be less than significant. Therefore, the Project has no mitigation measures specific to air quality. The community near the Project site is already exposed to toxic diesel PM emissions from freight operations at existing industrial buildings and vehicular traffic on State Route 72. Due to the Project's proximity to residences and schools, CARB is concerned with the potential cumulative health impacts associated with the construction and operation of the Project.

E-5

[4] City of Wittier. Whittier Boulevard Business Center Project Draft Environmental Impact Report. Page 3-17.
[5] TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.
[6] TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

The list below details the CARB regulations that will result in the reduction of diesel PM and NOx emissions from trucks within California:

- **Drayage Truck Regulation:** The existing Drayage Truck Regulation requires all drayage trucks to operate with an engine that is a 2007 model year or newer and the Truck and Bus Regulation requires all trucks, including drayage, to have 2010 or newer model year engines by January 1, 2023. As part of CARB's overall approach to accelerate a large-scale transition to zero-emission medium-and heavy-duty vehicles, the amendments to the Advanced Clean Trucks regulation was approved March 2021 to help ensure that zero-emission vehicles are brought to market. CARB directed staff to ensure that fleets, businesses, and public entities that own or direct the operation of medium- and heavy-duty vehicles in California purchase and operate ZEVs to achieve a smooth transition to ZEV fleets by 2045 everywhere feasible, specifically to reach:
    - 100 percent zero-emission drayage trucks, last mile delivery, and government fleets by 2035
    - 100 percent zero-emission refuse trucks and local buses by 2040
    - 100 percent zero-emission capable utility fleets by 2040
- **Heavy-Duty Low-NOx Omnibus Rule:** On August 27, 2020, CARB approved the Heavy-Duty Low-NOx Omnibus Rule that requires truck emission standards to be reduced from 0.20 to 0.05 grams per brake horsepower-hour (g/bhp-hr) from 2024 to 2026, and to 0.02 g/bhp-hr in 2027.
- **Advanced Clean Trucks Regulation:** On June 25, 2020, CARB approved the Advanced Clean Trucks Regulation. The regulation requires manufacturers to start the transition from diesel trucks and vans to zero-emission trucks beginning in 2024. The rule is expected to result in about 100,000 electric trucks in California by the end of 2030 and about 300,000 by 2035.
- **Advanced Clean Fleets Regulation:** The Advanced Clean Fleets Regulation is part of CARB's overall strategy to accelerate a large-scale transition to zero-emissions medium- and heavy-duty vehicles. This regulation works in conjunction with the Advanced Clean Trucks regulation, approved in 2021, which helps ensure that zero-emissions vehicles are available for sale. The regulation applies to trucks performing drayage operations at seaports and railyards, fleets owned by State, local, and federal government agencies, and high priority fleets. High priority fleets are those entities that own, operate, or direct at least one vehicle in California, and that have either $50 million or more in gross annual revenue, or that own, operate, or have common ownership or control of a total of 50 or more vehicles. The regulation affects medium- and heavy-duty on-road vehicles with a gross vehicle weight rating greater than 8,500 pounds, off-road yard tractors, and light-duty mail and package delivery vehicles.

E-6

To further reduce the Project's air pollution emissions and stay in step with CARB regulations, it is critical that the City plans for the infrastructure to support electric trucks. To this end, CARB urges the City to include a mitigation measure or project design feature that requires all heavy-duty trucks to be electric and to install on-site infrastructure to support those electric trucks. A list of commercially available zero-emission trucks can be obtained from the Hybrid and Zero-emission Truck and Bus Voucher Incentive Project (HVIP).[7] The HVIP is a part of California Climate Investments to incentivize the purchase of zero-emission trucks. Based on CARB's review of the zero-emission trucks listed in the HVIP, there are commercially available electric trucks that can meet the cargo transportation needs of individual industrial uses proposed in the City today.

E-7

In addition to the mitigation modification recommended above, the City should add the air pollutant emission reduction measures listed below in the FEIR.

- In construction contracts, include language that requires all heavy-duty trucks entering the construction site during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-NO_x standard starting in the year 2022.[8]
- Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than two minutes while on site.
- Include contractual language in tenant lease agreements, requiring the installing of vegetative walls[9] or other effective barriers that separate loading docks and people living or working nearby.

E-8

Conclusion

Due to the Project's proximity to nearby industrial uses, residences, and schools, CARB is concerned the construction and operation of the Project may negatively contribute to cumulative impacts to the surrounding community. CARB urges the City to include more mitigation measures or project design features to reduce air pollutant emissions emitted by the Project. CARB also urges the City to include a design measure restricting the operation of TRUs within the Project site.

E-9

[7] Zero-Emission Truck and Bus Voucher Incentive Project. Accessible at: *https://californiahvip.org/*
[8] In 2013, CARB adopted optional low-NOx emission standards for on-road heavy-duty engines. CARB encourages engine manufacturers to introduce new technologies to reduce NOx emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model-year 2010 and later. CARB's optional low-NOx emission standard is available at: *https://ww2.arb.ca.gov/our-work/programs/optional-reduced-nox-standards* .
[9] Effectiveness of Sound Wall-Vegetation Combination Barriers as Near-Roadway Pollutant Mitigation Strategies (2017) is available at: *https://ww2.arb.ca.gov/sites/default/files/classic//research/apr/past/13-306.pdf*

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts, coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

E-9 (CONT.)

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your list of selected State agencies that will receive the FEIR. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist via email at *stanley.armstrong@arb.ca.gov*.

Sincerely,

Matthew O'Donnell, Branch Chief, Risk Reduction Branch

cc: State Clearinghouse
state.clearinghouse@opr.ca.gov

Yassi Kavezade, Organizer, Sierra Club
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Stanley Armstrong, Air Pollution Specialist, Risk Reduction Branch

RESPONSES TO COMMENT LETTER E:
California Air Resources Board (CARB)

E-1 In this introductory comment, California Air Resources Board (CARB) provides a summary of the Project. The introductory comment is noted. No further response is required.

E-2 CARB expresses concern about cumulative health impacts stating that that the Project will contribute air pollutants that expose nearby communities and schools to elevated levels of air pollution and references CARB mischaracterizes the area surrounding the Project site as having many industrial facilities. As shown on DEIR Figure 2-4, A*erial Photograph*, land uses in the site's immediate vicinity include a wide mix of uses including but not limited to residential, institutional, self-storage, commercial, light industrial, and business park. Assembly Bill 617, which highlights the need for further emission reductions in communities with high exposure burdens. The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years. The DEIR disclosed existing pollution burdens in DEIR Subsection 2.4.4, *Pollution Burden*. A Health Risk Assessment, provided as DEIR Technical Appendix B, was prepared for the Project to determine if the Project would have a significant impact related to hazardous air pollutants. The calculations did not take discontinuation of prior manufacturing uses on the Site and its associated air pollutant emissions into account and calculated the Project's emissions as new emissions generator. Even so, as discussed in DEIR Section 5.0, *Other CEQA Considerations*, Section 5.4.3, *Air Quality*, the proposed Project would not exceed any of the SCAQMD localized significance thresholds (LSTs) during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

E-3 CARB informs that according to CalEnviroScreen, the Project Site is within the top 10 percent for pollution burden and is considered a disadvantaged community, references Executive Order N-79-20, and encourages the City to plan for the use of zero-emission technologies within the Project area. DEIR Section 2.0, *Environmental Setting*, provides the CalEnviroScreen Indicators for the Project Site's census tract and acknowledges the Project's location in a disadvantaged community. The commenter is reminded that the Project entails redeveloping a property that has been used for manufacturing for the last 70+ years and the Site's redevelopment will result in the abatement of hazardous materials and the implementation of soil management and remediation efforts to reduce pollution burden in the community. The proposed building also would be constructed to CALGreen standards and thus reduce pollution burden as compared to re-occupancy of the existing building. Further, it is likely that Project GHG emissions will decrease over time as regulatory compliance measures transition passenger vehicle and truck manufacturers and consumers toward zero-emission (ZE) vehicles; however, because a timeline for ZE vehicle use at the Project Site is dependent on the commercial availability of these vehicles and consumer behavior, the pace of GHG reduction cannot be assured with any certainty. As advancements in vehicle technology progress, it is expected that a higher percentage of vehicles including trucks will be electric-powered than occurs today. The following measures have been added to the Final EIR to facilitate the accommodation of zero-emission technologies:

MM 4.3-4: The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed:

a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks.

E-4 CARB states that the FEIR should include design measures to restrict the operation of Transport Refrigeration Units (TRUs) within the Project area to ensure that TRUs will not operate within the Project Site without first quantifying and mitigating their potential impacts. The Project applicant does not propose refrigerated storage space. To assure that none of the building's storage space will be refrigerated, the following mitigation measure has been added to the FEIR:

MM 4.3-5: Prior to the issuance of a shell building permit and tenant improvement building permits, the City shall verify that none of the building's storage space will be refrigerated.

E-5 CARB states that the FEIR should include more mitigation measures to further reduce the Project's air pollution emissions due to the Project's proximity to residences and schools and the potential cumulative health impacts associated with the construction and operation of the Project. As discussed in Response E-2, the Project's Health Risk Assessment, provided as DEIR Technical Appendix B, evaluated the Project's proximity to nearby sensitive receptors and determined that the proposed Project would not exceed any of the SCAQMD LSTs during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, impacts would be less than significant, and mitigation is not required. Mitigation measures MM 4.3-1 though MM 4.3-10 have been added to the FEIR to reduce the Project's GHG emissions, which also would reduce air pollution emission and related health effects.

E-6 CARB provides a list and description of the CARB regulations that will result in the reduction of diesel PM and NO_X emissions from trucks within California. The CARB regulations are acknowledged. The Project would comply with all applicable regulations.

E-7 CARB recommends that the City include a mitigation measure or project design feature that requires all heavy-duty trucks to be electric and to install on-site infrastructure to support those electric trucks.

Mitigation measures MM 4.3-2 and MM 4.3-3 have been added to the FEIR, which are listed above in Response B-7, to encourage use of electric powered technologies. As stated on DEIR p. 4.3-20: "As advancements in vehicle technology progress, it is expected that a higher percentage of vehicles including trucks will be electric-powered than occurs today. However, until vehicle technology advances and electric trucks are more commonly commercially available with enough power to haul heavy loads over long distances, it is reasonable to assume that the truck fleet that will access the Project Site will be primarily diesel-powered." Given current technology, it is not practical or feasible to limit diesel powered trucks from accessing the Project site.

E-8 CARB recommends that the City add air pollutant emissions reduction measures, including heavy-duty trucks being model 2014 or later and meet CARB's lowest optional NO_X standard, restricting idling to no longer than 2 minutes, and requiring vegetation walls or other barriers to separate loading docks from nearby people.

Regarding engine model years, the City does not have the jurisdictional authority to prohibit vehicles that are legally permitted to travel on California public streets from accessing the Project site. However, under the Truck and Bus Regulation adopted by the commenter (CARB) in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks were equipped with PM filters and upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements occurred on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) adhered to a similar schedule and were all replaced by 2020. CARB's webpage states that the reduced NOx standards for heavy-duty vehicles (2014 models or later) is optional, and CARB is encouraging engine manufacturers to introduce new technologies to reduce NOx emissions below current mandatory requirements. The City of Whitter does not have the jurisdictional authority to enforce a standard that CARB itself is recommending as optional.

Regarding idling, CARB limits truck engine idling to 5 minutes everywhere in California. Compliance is ensured through periodic site inspections conducted by building officials, and/or in response to citizen complaints. The City acknowledges the desire for idling to be even lower than CARB's 5 minute requirement and as such as added the following mitigation measure to the FEIR:

MM 4.3-9 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the

CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.

Regarding landscaping, as shown in DEIR Figure 3-7, *Landscape Conceptual Plan*, vegetative landscaping would be concentrated around the perimeter of the Project Site, including between the Project site boundaries and the planned loading dock area as suggested by the commenter.

E-9 CARB concludes by requesting the City to include more mitigation measures or project design features to reduce air pollutant emissions from the Project and to include a design measure restricting the operation of TRUs within the Project Site. Mitigation measures MM 4.3-1 through MM 4.3-10 have been added to the FEIR to reduce the Project's GHG emissions, which also would reduce air pollution emission and related health effects.

COMMENT LETTER F

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL:
efitzgerald@cityofwhittier.org
Ellen Fitzgerald, Principal Planner
City of Whittier
Community Development Department, Planning Services Division
13230 Penn Street, Whittier, CA 90602

September 8, 2023

Draft Environmental Impact Report (Draft EIR) for the Whittier Boulevard Business Center Project (Proposed Project)(SCH No.: 2022120346)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The City of Whittier is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. The following comments include recommended revisions to the operational Localized Significance Thresholds (LST) analysis and regional air quality impact analysis, cleanup activities during construction, Health Risk Assessment (HRA) analysis, and information about South Coast AQMD air permits that the Lead Agency should include in the Revised Draft EIR or Final EIR.

South Coast AQMD Staff's Summary of Project Information in the Draft EIR

Based on the Draft EIR, the Lead Agency proposes construction and operation on 13.49 acres of a building totaling 295,959 square feet, which includes a building footprint of 288,959 square feet and approximately 7,000 square feet of interior mezzanine space.[1] The building is designed to accommodate manufacturing, assembly, research & development, light industrial, and related uses.[2] During the operational phase of the Proposed Project the Lead Agency assumes 24 loading dock doors,[3] 169 truck trips per day,[4] and storage, if any, will not be refrigerated.[5] Based on a review of aerial photographs, South Coast AQMD staff found that the nearest sensitive receptor (residential development) is located adjacent to the Proposed Project site, approximately 45 feet west of the Proposed Project property line. Construction of the Proposed Project is anticipated to occur in a single phase, commence during the fourth quarter of 2023, and be completed during the fourth quarter of 2024.[6] Operation is expected to begin in 2024.[7] The Proposed Project is located near the southwest corner of Whittier Boulevard and Penn Street in the City of Whittier, Los Angeles County.

F-1

[1] Draft EIR. Page 1-2.
[2] *Ibid*. Page 1-2.
[3] *Ibid*. Page 1-2.
[4] *Ibid*. Page 5-13.
[5] *Ibid*. Page 3-17.
[6] *Ibid*. Appendix B. Page 1.
[7] *Ibid*. Appendix B. Page 1.

Ellen Fitzgerald, Principal Planner September 8, 2023

South Coast AQMD Staff's Comments on the Draft EIR

LST Air Quality Impact Analysis for Operation

Table 11 in Appendix B of the Draft EIR shows the Local Operational Emissions at the Nearest Receptors in pounds/day (see Table 1 below).[8] For each pollutant (NOx, CO, PM10 and PM2.5), the Lead Agency compares the Proposed Project's estimated total on-site emissions to the applicable South Coast AQMD LST[9] and states whether the South Coast AQMD threshold will be exceeded. Total on-site emissions for PM10 are estimated to be 6.08 pounds/day. The South Coast AQMD LST for operation is 4 pounds/day, therefore the Proposed Project's PM10 on-site emissions exceed the LST. The Lead Agency states in Table 1, however, that the PM10 LST threshold is not exceeded. Also, based on a review of the CalEEMod technical files provided to South Coast AQMD staff via e-mail (Ellen Fitzgerald, personal communication, August 16, 2023), it is unclear how the 5.91 pounds/day of PM10 was arrived at for the on-site vehicle emissions. South Coast AQMD staff recommends that the Lead Agency revise the LST analyses for PM10 and include the revisions in the Revised Draft EIR or Final EIR.

F-2

Table 1
Local Operational Emissions at the Nearest Receptors

	On-Site Pollutant Emissions (pounds/day)[1]			
On-Site Emission Source	NOx	CO	PM10	PM2.5
Area Sources[2]	0.11	12.90	0.02	0.02
Energy Usage[3]	2.01	1.69	0.15	0.15
Vehicle Emissions[4]	15.50	56.20	5.91	1.28
Total Emissions	17.62	70.79	6.08	1.45
SCAQMD Thresholds[5]	172	1,480	4	2
Exceeds Threshold?	No	No	No	No

Notes:
(1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres in SRA 5 Southeast LA County.
(2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
(3) Energy usage consists of emissions from on-site natural gas usage.
(4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
(5) The nearest sensitive receptors are the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site; therefore, the 25 meter threshold was used.

In addition, the Proposed Project site is 13.49 acres.[10] The Lead Agency uses the South Coast AQMD Mass Rate LST Look-up Table[11] for five acres to determine if the Proposed Project's operational daily emissions of NOx, CO, PM10 and PM2.5 could result in a significant impact to local air quality. South Coast AQMD staff, however, developed the LST methodology for Proposed Projects that are less than or equal to five acres.[12] For projects that are greater than five

F-3

[8] Draft EIR. Appendix B, Table 11. Page 40.
[9] South Coast AQMD's CEQA Localized Significance Thresholds (LST's). Access here: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds
[10] Draft EIR. Appendix B. Page 1.
[11] South Coast AQMD Appendix C – Mass Rate LST Look-up Table. Access here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf
[12] Final LST Methodology, July 2008. Page 1-1, 3-3, & 3-4. Access here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf

acres in size South Coast AQMD recommends that lead agencies perform project-specific dispersion modeling to determine localized air quality impacts.[13] South Coast AQMD staff therefore recommends that the Lead Agency perform project-specific air dispersion modeling for the Proposed Project's operational phase to determine localized air quality impacts and include the revisions in the Revised Draft EIR or Final EIR.

If the above revisions lead to an updated significance determination for the Proposed Project operation air quality impact results, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook,[14] South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2022 Air Quality Management Plan,[15] and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.[16]

F-3 (CONT.)

Regional Air Quality Impact Analysis for Operation

Table 10 in Appendix B of the Draft EIR shows the Regional Operational Pollutant Emissions in pounds/day (see Table 2 below).[17] Based on a review of the CalEEMod technical files provided to South Coast AQMD staff via e-mail (Ellen Fitzgerald, personal communication, August 16, 2023), it appears that the pollutant emissions for ROG, NOx, CO, and SO2 in Table 2 below match the pollutant emission quantities in the CalEEMod technical files. The Table 2 pollutant emissions for PM10 and PM2.5, however, do not match corresponding emissions in the CalEEMod technical files. In the CalEEMod technical files the maximum daily operational pollutant emissions for PM10 are showing as approximately 14 pounds per day. For PM2.5, the maximum daily operational pollutant emissions are showing as approximately 4 pounds per day. It is unclear how the Table 2 PM10 and PM2.5 pounds/day pollutant emissions were arrived at. South Coast AQMD staff recommends that the Lead Agency revise the operational regional analyses for PM10 and PM2.5 and include the revisions in the Revised Draft EIR or Final EIR.

F-4

Table 2
Regional Operational Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	13.10	18.40	70.70	0.22	6.08	1.46
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
Source: CalEEMod Version 2022.1.1.13; the higher of either summer or winter emissions.

[13] Final LST Methodology, July 2008. Page 1-1, 3-3, & 3-4. Accessed here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf
[14] South Coast AQMD Air Quality Analysis Handbook. Access here: https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook
[15] South Coast AQMD's 2022 Air Quality Management Plan. Access here: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan
[16] Southern California Association of Governments' 2020-2045 RTP/SCS. Access here: https://www.connectsocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf.
[17] Draft EIR. Appendix B, Table 10. Page 39.

Cleanup Activities duringconstruction

The Proposed Project site has an approximately 70-year history of industrial use and based on the Hazards and Hazardous Materials section of the Draft EIR, three technical studies were prepared for the Proposed Project site.[18] The studies show that releases of hazardous substances have occurred at the site and concentrations of contaminants of concern in soil are below established remedial criteria.[19] The studies also show, however, that there remains the potential that demolition and grading activities will lead to encounters of unanticipated subsurface features or soil conditions where elevated soil gas concentrations were reported.[20] The Lead Agency states that for mitigation measure (MM) 4.4-1, the City of Whittier shall require compliance with the Project's Soil Management Plan and that as part of the grading efforts during construction, South Coast AQMD Rules 1166 (Volatile Organic Compound Emissions from Decontamination of Soil) and 1466 (Control of Particulate Emissions from Soils with Toxic Air Contaminants) will also apply.[21] Given that there exists the potential during the construction phase that impacted soil may be encountered that requires off-site disposal,[22] such impacted soil may not meet the acceptance criteria for a nearby receiving site or disposal facility. It is unclear in the Draft EIR if the Lead Agency completely analyzed air quality impacts from such soil cleanup activities. F-5

Since cleanup activities could include the removal and disposal of contaminated soil, and depending on the type of contamination, contaminated soil may not be accepted at a landfill site 20 miles away from the Proposed Project site,[23] such soil may need to be disposed of at a permitted hazardous disposal facility outside Los Angeles County with a one-way truck trip length that is greater than 20 miles. If it is reasonably foreseeable at the time of the release of the Draft EIR that the Proposed Project would likely involve remediation of contaminated soil, the Lead Agency should use good faith, best efforts to provide information on the scope, types, and duration of any reasonably foreseeable soil remedial or mitigation activities, quantify emissions from those activities, and include those emissions in the Proposed Project's regional and local construction emissions profile to be compared to South Coast AQMD's air quality CEQA significance thresholds for construction to determine the level of significance in the Revised Draft EIR or Final EIR. If those emissions are not included in the Revised Draft EIR or Final EIR, the Lead Agency should provide reasons for not including them supported by substantial evidence in the record. If the reason for not including them in the Revised Draft EIR or Final EIR is because remedial or mitigation measures have not been fully developed or approved prior to the Revised Draft EIR or certification of the Final EIR, the Lead Agency should commit to evaluating the air quality impacts from those activities through a CEQA process when the measures become known and prior to allowing the commencement of any soil remedial or mitigation activities at the Proposed Project. F-6

[18] Draft EIR. Page 4.4-1.
[19] *Ibid*. Appendix E. Page 6.
[20] *Ibid*. Appendix E. Page 3.
[21] *Ibid*. Page 4.4-19 & 4.4-20.
[22] *Ibid*. Appendix E. Page 2.
[23] *Ibid.* Appendix B. Page 108.

Health Risk Assessment (HRA) Analysis

South Coast AQMD staff found that there are more than 70 multi- and single-family residences located near (within 500 feet) the western and southeastern boundaries of the Proposed Project site. In addition, the off-site truck travel route passes near residences on the southeastern boundary of the Proposed Project Site. The loading dock doors and on-site truck travel route is within 500 feet of residences on the western boundary of the Proposed Project Site. However, less than ten of them are used as discrete receptors in the HRA and provided in the associated dispersion modeling files.[24] These receptors in the model are potentially not dense enough to capture the maximum pollutant concentrations (highest ground level concentration of diesel-particulate matters) that are needed to estimate the maximum cancer risk values. Therefore, South Coast AQMD staff recommends that the Lead Agency revise the health risk assessment and dispersion modeling files by adding more residential receptors on the west and southeastern side of the facility and include the revised results in the Revised Draft EIR or Final EIR. If the revision is not included in the Revised Draft EIR or Final EIR, the Lead Agency should provide reasons for not having them supported by substantial evidence in the record.

F-7

South Coast AQMD Air Permits and Responsible Agency Role

Per MM 4.4-6, a VOC-Impacted Soil Mitigation Plan shall be prepared and approved by the South Coast AQMD.[25] If implementation of the Proposed Project would also require the use of stationary equipment, including but not limited to emergency generators, emergency fire pump(s), boilers, etc., air permits from South Coast AQMD are also required for such equipment. The Revised Draft EIR or Final EIR should include a discussion on all stationary equipment that will require South Coast AQMD air permits and identify South Coast AQMD as a Responsible Agency for the Proposed Project. Any assumptions used in the Revised Draft EIR or Final EIR will be used as the basis for air permit conditions and limits for the Proposed Project. Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions on permits. For more general information on permits, please visit South Coast AQMD's webpage at: http://www.aqmd.gov/home/permits.

F-8

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), the Lead Agency is required to provide South Coast AQMD written responses to all comments contained herein at least 10 days prior to certifying the Revised Draft EIR or the Final EIR. In addition, as provided by CEQA Guidelines Section 15088(c), if the Lead Agency's position is at variance with the recommendations provided in this comment letter, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided.

We appreciate the opportunity to review the Proposed Project. Thank you for considering these comments. South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Evelyn Aguilar, Air Quality Specialist, at eaguilar@aqmd.gov, should you have any questions.

F-9

[24] *Ibid*. Appendix B. Page 45 – 66.
[25] Draft EIR. Page 4.4-20 & 4.4-21.

Ellen Fitzgerald, Principal Planner September 8, 2023

Sincerely,

Sam Wang

Sam Wang
Program Supervisor, CEQA IGR
Planning, Rule Development & Implementation

F-9
(CONT.)

SW:SG:EA
LAC230802-02
Control Number

RESPONSES TO COMMENT LETTER F:
South Coast Air Quality Management District (SCAQMD)

F-1 In this introductory comment, South Coast Air Quality Management District (SCAQMD) acknowledges reviewing the DEIR and provides a summary of the Project. The introductory comment is noted. No further response is required.

F-2 SCAQMD references the Project's PM10 emissions on Table 11 of DEIR Technical Appendix B and questions the data. The report author, Ganddini Group, Inc., reviewed Table 11 and determined there was an error in the Excel table calculation (per footnote 4, the mobile source emissions were supposed to be divided by 10 and they inadvertently were not). With the fraction applied, the total emissions for Table 11 do not exceed any of the operational LST thresholds. The correction has been made in the FEIR and emissions remain less than significant.

Table 11
Local Operational Emissions at the Nearest Receptors

	On-Site Pollutant Emissions (pounds/day)[1]			
On-Site Emission Source	NOx	CO	PM10	PM2.5
Area Sources[2]	0.11	12.90	0.02	0.02
Energy Usage[3]	2.01	1.69	0.15	0.15
Vehicle Emissions[4]	1.64	5.62	1.39	0.37
Total Emissions	3.76	20.21	1.56	0.54
SCAQMD Thresholds[5]	172	1,480	4	2
Exceeds Threshold?	No	No	No	No

Notes:
(1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres in SRA 5 Southeast LA County.
(2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
(3) Energy usage consists of emissions from on-site natural gas usage.
(4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
(5) The nearest sensitive receptors are the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site; therefore, the 25-meter threshold was used.

F-3 SCAQMD recommends that the Lead Agency perform Project specific air dispersion modeling for the Project's operational phase to determine localized air quality impacts and that if the significance determination is updated, that all feasible mitigation measures be utilized. Dispersion modeling is not required. SCAQMD's 5-acre Look-up Table was used as a conservative screening analysis for on-site operational emissions to determine whether more-detailed dispersion modeling would be necessary. This approach is conservative because it assumes that all on-site emissions associated with a project would occur within a concentrated 5-acre area. This screening method would therefore over-predict potential localized impacts, because by assuming that on-site operational activities are occurring over a smaller area, the resulting concentrations of air pollutants are more highly concentrated once they reach the smaller site boundary than they would be for activities if they were spread out over a larger

surface area. Because the Project Site is larger than 5 acres, the same amount of generated air pollutants would disperse over a larger surface area and would result in a lower concentration once emissions reach the site boundary. Refer to Table 11 in Response F-2 above, which shows that operational emissions near sensitive receptors would fall far below SCAQMD's significance thresholds. The results of dispersion modeling would result in even lower emission levels at sensitive receivers. The DEIR's conclusion that impacts would be less-than-significant is unchanged and mitigation measures are not required. Regardless, Mitigation Measures MM 4.3-1 though MM 4.3-10 have been added to the FEIR to reduce the Project's GHG emissions, which also would serve to reduce air pollutant emissions including at sensitive receptor locations.

F-4 SCAQMD references Table 10 of DEIR Technical Appendix B, states that the pollutant emissions for PM_{10} and $PM_{2.5}$ do not match the corresponding emissions in the CalEEMod technical files, and questions how the PM_{10} and $PM_{2.5}$ emissions were calculated. The CalEEMod output, specifically the regional operational pollutant emissions, was reviewed by the report author, Ganddini Group, Inc. As shown in the CalEEMod Detailed Report provided in Appendix B of the DEIR Technical Appendix B, the Project's total operational PM_{10} emissions are a maximum of 6.08 pounds per day and the $PM_{2.5}$ emissions are a maximum of 1.46 pounds per day. This is consistent with what was shown in Table 10 of Technical Appendix B. However, when Ganddini Group opened the JSON modeling file in CalEEMod and reviewed the emissions within the online program, the values of 14 pounds per day for PM_{10} and 4 pounds per day for $PM_{2.5}$ were shown as stated by the commenter. Ganddini Group is unsure why the downloaded PDF version of the CalEEMod output for operational PM_{10} and $PM_{2.5}$ emissions do not match the emissions shown when viewing the file within the online program. Regardless, Ganddini Group updated the emission values for PM_{10} and $PM_{2.5}$ within Table 10 of Technical Appendix B. The emissions provided in Table 11, *Local Operational Emissions at the Nearest Receptor*, also were reviewed and it was determined that the PM_{10} and $PM_{2.5}$ vehicle emissions for mobile sources also needed to be updated based on the emissions provided in the online file versus the downloaded PDF report. These updates did not affect the significance conclusion for the Project as was reported in the DEIR. The emissions are still below SCAQMD regional and local operational thresholds. Updates to Table 10 are shown below.

Table 10
Regional Operational Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	13.10	18.40	70.70	0.22	14.11	3.89
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
Source: CalEEMod Version 2022.1.1.13; the higher of either summer or winter emissions.

F-5 SCAQMD comments that the soil with elevated gas concentrations may not meet the acceptance criteria for the disposal facility and states that it is unclear in the DEIR whether the EIR completely analyzed air quality impacts from soil cleanup activities. Hauling of soil for off-site disposal is not expected to occur. As indicated in DEIR Technical Appendix E3, *Soil Management Plan*, shallow soils would be excavated, recompacted, and handled on-site. The only potential for off-site disposal, which is not expected, would be in the event of encountering an unanticipated environmental condition, which is highly speculative. The air pollutant emissions from soil cleanup activities were properly analyzed and no revisions to the technical analysis is required. Should unanticipated environmental conditions be encountered, Section 9.3 of the Project's *Soil Management Plan* (EIR Technical Appendix E3) provides a detailed plan of action including coordination with the Regional Water Quality Control Board (RWQCB) and sampling the potentially impact soil to determine whether further action is warranted.

F-6 SCAQMD comments about contaminated soil hauling and asks that the EIR provide information on the scope, types, and duration of reasonably foreseeable soil remedial or mitigation activities, quantification of emissions from those activities, and inclusion of related emissions in the Project's construction emissions profile. As explained above in Response F-5, hauling of contaminated soil for off-site disposal is not expected to occur. As indicated in DEIR Technical Appendix E3, *Soil Management Plan*, shallow soils would be excavated, recompacted, and handled on-site. The only potential for off-site disposal, which is not expected and is speculative, would be in the event of encountering an unanticipated environmental condition. The air pollutant emissions from soil cleanup activities were properly analyzed and no revisions to the technical analysis is required. Should unanticipated environmental conditions be encountered, Section 9.3 of the Project's *Soil Management Plan* (EIR Technical Appendix E3) provides a detailed plan of action including coordination with the Regional Water Quality Control Board (RWQCB) and sampling the potentially impact soil to determine whether further action is warranted.

F-7 SCAQMD recommends that the health risk assessment and dispersion modeling files be revised by adding more residential receptors on the west and southeastern side of the facility, including the revised results in the revised DEIR or FEIR, or provide reasons why they are not included. Additional dispersion modeling is not required because the analysis already evaluates the maximally exposed receptor, and additional modeling would only show that additional receptors, located further from the Project site than the maximally exposed receptor, would be exposed to a lesser extent of pollutants than documented in the DEIR. When conducting HRA modeling, it is not necessary to place receptors at every residential use in proximity to the project site. Furthermore, as stated on page 45 of Technical Appendix B, "Receptors were located at existing sensitive receptors surrounding the proposed project (as detailed above). In addition, the identified sensitive receptor locations were supplemented by the specification of a modeling grid that extended around the proposed project to identify other potential locations of impact." Therefore, in addition to the discrete receptors (shown as orange triangles) at the closest receptor locations, 441 Uniform Cartesian Grid receptors were also included in the modeling per SCAQMD guidance. Both the discrete and Cartesian receptors are shown in Figure 3 on page 56 of Technical Appendix B. As shown in Figure 5 of the Technical Appendix B, the HRA modeling conducted for the proposed Project considered the nearest residential receptors to the on-site Project

emissions, including the loading dock doors and on-site truck travel routes, and the off-site truck travel routes. The contours provided in Figure 5 of Technical Appendix B show that even if additional residential receptors were added along the western Project site boundary or to the southeast of the Project site, these receptors would still be located in areas where the Project's emissions are below the 10 in one million significance threshold. Therefore, no additional receptors are necessary and no revisions to the HRA modeling are required.

F-8 SCAQMD comments that the FEIR should include a discussion on all stationary equipment that would require a SCAQMD air permit and that the SCAQMD should be identified as a Responsible Agency. The applicant is proposing the Project on a speculative basis and the building's tenant is not known at this time. As such, there is no stationary equipment known at this time requiring a SCAQMD air permit. Nonetheless, the SCAQMD is identified in DEIR Table 3-1, *Project-Related Approvals/Permits*, in the event that a future building tenant requires either a permit to construct or permit to operate. The SCAQMD also is identified as a potential Responsible Agency on DEIR p. 1-4.

F-9 SCAQMD concludes by stating that a response to their comments is required and provides contact information in case of questions on their comments. This comment is noted. No further response is required.

COMMENT LETTER G

Robin Park
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Whittier, CA 90620
robinpark2006@gmail.com
347-855-3109
September 10, 2023

City of Whittier
Community Development Department
Planning Services Division
13230 Penn St Whittier, CA 90602

Subject: Opposition of the Whittier Boulevard Business Center Project DEIR

I am writing to express my strong opposition to the proposed Whittier Boulevard Business Center Project, as detailed in the Environmental Impact Report (EIR). While I understand the importance of economic development, I believe that this project has the potential to cause significant historical, cultural, and environmental harm that should not be overlooked.

The air quality and environmental impact assessment in the report may indicate that the project is in compliance with various regional and state standards, but it fails to consider the long-term consequences of the proposed development on our community's history and environment.

G-1

Firstly, the proposed project, as outlined in the EIR, would result in a profound and irreparable impact on cultural resources. The site's eligibility for listing on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) due to its association with post-World War II manufacturing and distribution activities holds immense historical value. Furthermore, the project area has earned recognition as a local historic landmark in Whittier under Criterion E of Section 18.84.050 of the Whittier Municipal Code. The proposed demolition of the Ekco Products Company plant and the loss of its historical significance would be a tragic loss for our community. While the EIR acknowledges mitigation measures, it is evident that these measures cannot fully offset the loss of this irreplaceable cultural resource. Therefore, I strongly oppose this project, given the inevitable cultural resource impact.

G-2

Secondly, I am deeply concerned about the significant greenhouse gas emissions impact that this project would have. The EIR clearly states that the project would exceed the significance threshold of 3,000 metric tons of CO_2 equivalents per year, resulting in substantial and cumulatively-considerable GHG emissions. These emissions, particularly those originating from mobile sources, pose a significant threat to our environment and contribute to the pressing issue of climate change. While I understand that some GHG emissions are difficult to mitigate, it is incumbent upon our city leaders to prioritize projects that align with sustainability goals and strive for the least possible environmental harm. In light of this, I strongly oppose this project that would undeniably exacerbate our community's carbon footprint.

G-3

In conclusion, I respectfully request that the City of Whittier seriously deny the Whittier Boulevard Business Center Project. The project's cultural resource impact and greenhouse gas emissions impact are both significant and unavoidable, and the long-term consequences for our community and environment should not be taken lightly. Preserving our city's history and environment for future generations should be a top priority, and I believe that the proposed development poses a significant threat to these values.

I appreciate your attention to this matter and trust that the City of Whittier will make a decision that reflects the best interests of its residents. Thank you for your service to our community.

G-4

Sincerely,

Robin Park

RESPONSES TO COMMENT LETTER G:
Robin Park

G-1 Robin Park expresses opposition to the Project and opines that the DEIR fails to consider the long-term consequences of the development on the community's history and environment. The Project entails redeveloping a property that has been used for manufacturing for 70+ years. Redevelopment of the Project Site as proposed would remediate existing hazardous materials conditions and replace the existing vacant buildings with a new building compliant with contemporary regulatory requirements. The Project's DEIR evaluates the Project's short-term construction impacts and long-term operational impacts on the surrounding community and the environment under each resource topic throughout the DEIR and concludes that two impacts would be significant and unavoidable, including demolition of a building with associative historic significance, and GHG emissions.

G-2 Robin Park expresses opposition to the Project due to the cultural resource impacts and loss of a building with associative historic significance. Mitigation measures are included in DEIR Subsection 4.1, *Cultural Resources*, in order to preserve the memory of the Ekco Products Company plant and its importance in the City of Whittier. The commenter's opposition to the Project is acknowledged.

G-3 Robin Park expresses opposition to the Project due to the Project's GHG emissions and the impact it would have on the community's carbon footprint. This commenter's opposition and comment are acknowledged. The Project's design includes features that would maximize energy efficiency and reduce Project-related GHG emissions including but not limited to compliance with the provisions mandated by the California Green Building Standards Code (CALGreen). CALGreen's Title 24 goes through an update and approval process every three years by the California Energy Commission, and the changes are subsequently ratified by the California Building Standards Commission to become State law. The most recent approved updates consist of the 2022 Energy Efficiency Standards and 2022 CALGreen Code, which became effective on January 1, 2023. Each update of Title 24 ensures a higher level of energy efficiency than the prior version. The State assures that CALGreen standards provide a high level of energy efficiency, which reduce GHG emissions. To address mobile source emissions, Mitigation Measures MM 4.3-1 through MM 4.3-10 have been added to the FEIR to further reduce the Project's GHG emissions. No other mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact.

G-4 Robin Park concludes by requesting that the City deny the Project due to the cultural resources and GHG impacts. The comment is acknowledged.

Comment Letter H

Office of the Sheriff

County of Los Angeles
Hall of Justice

Robert G. Luna, Sheriff

September 11, 2023

Ms. Ellen Fitzgerald, Principal Planner
City of Whittier
Community Development Department
Planning Services Division
13230 Penn Street
Whittier, California 90602

Dear Ms. Fitzgerald:

**WHITTIER BOULEVARD BUSINESS CENTER
NOTICE OF COMPLETION AND AVAILABILITY
DRAFT ENVIRONMENTAL IMPACT REPORT
REVIEW COMMENTS**

Thank you for inviting the Los Angeles County Sheriff's Department (Department) to review and comment on the July 2023 Notice of Completion and Availability of Draft Environmental Impact Report (NOC/NOA DEIR) for the Whittier Boulevard Business Center Project (Project). The Project proposes a redevelopment of a 13.49-acre property with one employment-generating manufacturing building having up to 295,499 square feet (sf) of floor space. The Project site is located on the western side of the Whittier Boulevard frontage road, between Walnut Grove Drive and Pacific Place. There are three vacant manufacturing buildings approximately 213,430 sf which would be demolished to construct the new proposed building. H-1

The Department's Pico Rivera Sheriff's Station currently provides law enforcement services to the unincorporated areas adjacent to the City of Whittier. The Project location is within the Whittier Police Department's jurisdiction. Therefore, the Department has no other comments to submit at this time. H-2

211 West Temple Street, Los Angeles, California 90012

A Tradition of Service
Since 1850

Ms. Fitzgerald - 2 - September 11, 2023

For future reference, the Department provides the following updated address and contact information for all requests for reviews comments, law documents, and other related correspondence:

Tracey Jue, Director
Facilities Planning Bureau
Los Angeles County Sheriff's Department
211 West Temple Street
Los Angeles, California 90012

Attention: Planning Section

Should you have any questions regarding this matter, please contact me at (323) 526-5657, or your staff may contact Mr. Immanuel Chiang, of my staff, at (323) 526-5637.

Sincerely,

ROBERT G. LUNA, SHERIFF

Tracey Jue, Director
Facilities Planning Bureau

H-2 (CONT.)

RESPONSES TO COMMENT LETTER H:
LA County Sheriff

H-1 In this introductory comment, the LA County Sheriff's Department acknowledges reviewing the DEIR and provides a summary of the Project. The introductory comment is noted. No further response is required.

H-2 The LA County Sheriff's Department provides contact information and states that the Project Site is within the jurisdiction of the Whittier Police Department and has no comments. This comment is noted. No further response is needed.

COMMENT LETTER I

BLUM, COLLINS & HO LLP
ATTORNEYS AT LAW
AON CENTER
707 WILSHIRE BOULEVARD
SUITE 4880
LOS ANGELES, CALIFORNIA 90017
(213) 572-0400

September 12, 2023

Ellen Fitzgerald
Principal Planner
Community Development Department
13230 Penn Street
Whittier, CA 90601

VIA EMAIL TO
efitzgerald@cityofwhittier.org

Subject: Comments on Whittier Boulevard Business Center EIR (SCH NO. 2022120346)

Dear Ms. Fitzgerald,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed Whittier Boulevard Business Center. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

The project proposes the demolition of three attached buildings having a total building footprint area of 213,430 s.f. and approximately 227 parking stalls. The Site is currently vacant and has been vacant since 2019. The proposed building is 295,959 square feet (s.f.) on a 13.49 acre site "for occupancy by a manufacturing, assembly, research and development (R&D), and/or light industrial user, with ancillary distribution and storage space in compliance with the Whittier Boulevard Specific Plan s (WBSP) Workplace District designation." The building proposes approximately 145,020 s.f of distribution space, 137,439 sf of manufacturing space, and 13,500 sf of office space. The building proposes 24 truck/trailer loading dock doors and 417 passenger car parking spaces.

I-1

3.0 Project Description

The EIR does not include a detailed floor plan or a detailed grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, grading plan, written narrative, and elevations. Additionally, the EIR maintains that the future tenant is unknown but Figure 3-4: Site plan indicates in the Sheet Index that Sheet A 1.1 Overall Floor Plan and Sheet A1.3 Enlarged Tenant Improvement Floor Plan exist. If the tenant was unknown, tenant improvement plans would not exist. Additionally, the EIR does not provide any information regarding the required import/export of soils and materials during the project grading and construction. Verification of the import/export materials is vital as it directly informs the quantity of necessary truck hauling trips due to soil import/export during the grading phase of construction. A revised EIR must be prepared to include wholly accurate and adequate detailed project site plan, floor plan, grading plan, elevations, and project narrative for public review.

I-2

4.3 Greenhouse Gas Emissions

The EIR provides a misleading and erroneous consistency analysis with SCAG's 2020-2045 Connect SoCal RTP/SCS. Notably, the EIR discusses the 2016 RTP/SCS while the 2020 adopted RTP/SCS is the current document that should be utilized for threshold analysis. The 2020 RTP/SCS is notably adopted for the purpose of avoiding or mitigating an environmental effect, as required by California law (SB 375 to reduce greenhouse gas emissions), detailed through the plan itself and Resolution No. 20-621-1 adopting the plan[1]. Due to errors in modeling, modeling without supporting evidence (as noted throughout this comment letter and attachments), and the EIR's conclusion the project will result in significant and unavoidable impacts to Greenhouse Gas Emissions, the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. The EIR must be revised to include a finding of significance due to these direct inconsistencies with SCAG's 2020-2045 Connect SoCal RTP/SCS.

I-3

5.0 Other CEQA Considerations

5.2 Significant Irreversible Environmental Impacts Which Would be Involved in the Proposed Action Should it be Implemented and 5.3 Growth-Inducing Impacts of the Proposed Project.

The EIR relies upon erroneous Energy modeling to determine that the project will meet sustainability requirements. As noted above, the EIR did not model the project's energy consumption in compliance with Title 24 modeling software. Further, the EIR states here that "this commitment of resources would not be substantial and would be consistent with regional and local growth forecasts and development goals for the area." The EIR does not meaningfully discuss the

I-4

[1] SCAG 2020 RTP/SCS https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176

project's significant and unavoidable Greenhouse Gas Emissions and Cultural Resources impacts or the significance of the project's impacts within a Disadvantaged Community. The EIR must be revised to include a finding of significance due to the project's significant and unavoidable Greenhouse Gas Emissions impacts and direct contribution to climate change.

I-4 (CONT.)

Further, erroneous modeling and providing the proposed project with emissions reductions credits for "existing uses" that do not actually exist at the vacant and uninhabited site results in unduly low "net" emissions that are below significance thresholds for Transportation modeling. The EIR must be revised to remove these credits for "existing uses" that do not actually exist and disclose the significant Transportation impacts associated with the proposed project and adequately discuss those impacts in this section.

I-5

The EIR does not adequately discuss or and analyze the commitment of resources is not consistent with regional and local growth forecasts. As noted throughout this comment letter, the project represents a significant amount of growth in the City, including its employment growth over 29 years. The EIR must also include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting.

I-6

The EIR has not provided an adequate or accurate cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. Table LUCC-3: Land Use Plan Buildout, 2040 Projections within the General Plan demonstrates that buildout conditions plan for 9,509,576 sf of non-residential building area. The project's 295,959 sf accounts for 3.1% of the General Plan's projected non-residential growth over 20 years, which is a significant amount of growth for a single project. The EIR is inadequate as an informational document as it has not provided a cumulative analysis of all non-residential projects approved since adoption of the General Plan to demonstrate that the project does not exceed the General Plan buildout analysis. This is vital as the EIR tiers a significant portion of its analysis from the General Plan EIR. A revised EIR must be prepared to include this information for analysis to adequately and accurately analyze all potentially significant environmental impacts.

I-7

<u>5.4 Effects Found Not to be Significant During the Initial Scoping Process</u>
5.4.3 Air Quality and 5.4.5 Energy
Please refer to attachments from SWAPE for a complete technical commentary and analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. The EIR provides general information about the census tract's Calenviroscreen scores but does not provide meaningful

I-8

analysis regarding the health impacts and effects of severe pollution rates. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[2], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project s census tract (6037502100) ranks worse than 94% of the rest of the state in overall pollution burden. The proposed project's census tract and surrounding community, including residences adjacent immediately to the west, and residences, senior residences, Whittier Hospital, Intercommunity Dialysis Center, and The Orchard Post Acute Care Facility to the south, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 63rd percentile for ozone burden, the 77th percentile for PM 2.5 burden, the 76th percentile for diesel particulate matter burden, and the 58th percentile for traffic impacts. All of these environmental factors are attributed to heavy truck/trailer activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure[3]. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[4].

I-8 (CONT.)

The census tract also bears more impacts from cleanup sites than 99% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water[5].. The census tract also ranks in the 98th percentile for hazardous waste facility impacts. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[6]..

The census tract ranks in the 86th percentile for contaminated drinking water. Poor communities are exposed to contaminants in their drinking water more often than people in other parts of the state[7].

I-9

The census tract ranks in the 86th percentile for contaminated drinking water and 90th percentile for groundwater threats. Poor communities are exposed to contaminants in their drinking water

[2] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[3] OEHHA Ozone https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone
[4] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter
[5] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[6] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities
[7] OEHHA Contaminated Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water

more often than people in other parts of the state[8]. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[9].

The census tract also ranks in the 83rd percentile for toxic releases. People living near facilities that emit toxic releases may breathe contaminated air regularly or if contaminants are released during an accident[10].

I-9 (CONT.)

Further, the census tract is a diverse community including 81% Hispanic, 1% Asian-American and 1% African-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 75% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community has a high rate of poverty, meaning 52% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[11]. Poor communities are often located in areas with high levels of pollution[12]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[13]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 78th percentile for incidence of cardiovascular disease and 55th percentile for incidence of asthma. The community also has a high rate of linguistic isolation, meaning 59% of the census tract speaks little to no English and faces further inequities as a result.

I-10

Additionally, the proposed project's census tract (6037502100) and the census tracts adjacent to the project site (6037501803 (east), 6037501400 (east), 6037501002 (north), 6037502003 (south), 6037502004 (south), 6037502700 (south), 6037502302 (west), and 6037502200 (west)) are identified as SB 535 Disadvantaged Communities[14]. This indicates that cumulative impacts of development and environmental impacts in the City are disproportionately impacting these communities. The EIR does not discuss that the project site and surrounding area are disadvantaged communities and does not utilize this information in its analysis. The EIR concludes that the proposed project will have significant and unavoidable cumulatively considerable impacts to Greenhouse Gas Emissions and has not considered these impacts in relation to the SB 535 status of the project census tract and surrounding area. The negative

I-11

[8] OEHHA Contaminated Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water
[9] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats
[10] OEHHA Toxic Releases https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities
[11] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[12] Ibid.
[13] Ibid.
[14] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535

environmental, health, and quality of life impacts of the warehousing and logistics industry in the City have become distinctly inequitable. The severity of significant and unavoidable impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR.

I-11 (CONT.)

California s Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24[15]. CalEEMod is not listed as an approved software. The CalEEMod-based modeling in the EIR and appendices does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

I-12

5.4.7 Land Use and Planning

The EIR states that "Based on a review of the Project s application materials *by City staff*, and as otherwise demonstrated throughout the analysis provided herein, the proposed Project would not conflict with applicable goals, objectives, or policies of the Envision Whittier General Plan, zoning requirements of the SP (Workplace District of the WBSP) zone, City of Whittier Municipal Code requirements, or other applicable regulations (e.g., regulations promulgated by the SCAQMD) adopted for the purpose of avoiding or mitigating an environmental effect." This statement is erroneous and misleading to the public and decision makers. The EIR does not consider the proposed project's significant and unavoidable cumulatively considerable impacts to Greenhouse Gas Emissions and Cultural Resources (Historic Resources) in its discussion and analysis. Therefore, the proposed project is not consistent with several goals and policies of the General Plan, which is adopted for the purpose of avoiding or mitigating an environmental effect and a significant and unavoidable direct impact occurs. A revised EIR must be prepared to disclose this significant and unavoidable impact to the public and decision makers.

I-13

A revised EIR must also be prepared to provide a consistency analysis with all General Plan and WBSP goals, and policies, including but not limited to the following:

I-14

[15] California Energy Commission 2022 Energy Code Compliance Software
https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

1. Environmental Justice Goal 9: Residential neighborhoods not burden by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support healthy lifestyles.

2. PSNH-9.1 Review the operating characteristics of proposed new industrial businesses near Disadvantaged Communities to minimize impacts on the population, especially children and the senior community. Encourage any existing sources of emissions to use feasible measures to minimize emissions that could impact air quality.

3. PSNH-9.4 Designate acceptable and unacceptable areas for freight trucking and truck idling to limit impacts to all residents and Disadvantaged Communities in particular.

4. PSNH-9.6 Encourage non-polluting industry and clean green technology companies to locate in the City.

5. Resource Management Element Goal 3: Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.

6. RM-3.1: Reduce emissions generated by motorized vehicles.

7. Historic Resources Element Goal 3: Protect historic and cultural resources from demolition, destruction, or inappropriate actions or consequences.

8. HR-2.1: Enhance, restore, preserve, and protect, as appropriate, historic resources throughout Whittier.

9. HR-2.2 Encourage the retention and/or adaptive reuse of historic residential, commercial, and industrial buildings.

10. HR-2.4 Provide guidance to the owners of designated landmark historic sites to preserve and rehabilitate structures.

11. LUCC-4.5: Require New and renovated employment center developments along Whittier Boulevard, Colima Road, and Lambert Road to: incorporate accessory uses such as public open space and/or trails, transit amenities, childcare facilities, and supportive retail uses based on the size and location of development.

I-14
(CONT.)

12. LUCC-4.8: Require high-quality design inn commercial and industrial development.

13. LUCC Goal 6: An inclusive and equitable community.

14. LUCC-6.6: Consider proximity to environmental health risks when planning for residential uses and address potential health risks at sites previously occupied by nonresidential land uses.

15. LUCC-6.7: In areas identified as Disadvantaged Communities, emphasize walkable and compact development patterns to reduce total vehicle miles traveled, improve air quality, and encourage physical activity.

I-14 (CONT.)

Further, the Innovation Land Use Designation of the General Plan states that it is "Intended to accommodate creative design and manufacturing businesses focused on new technologies, maker industries, research and development, and craft businesses such as breweries/wineries/distilleries, and specifically excluding heavy-duty vehicle repair and warehousing/storage uses (inclusive of personal storage businesses)." The building is proposed (designed, sited, architecturally treated, and constructed) as a concrete tilt-up industrial warehouse building. The EIR avoids stating that the building is exclusively proposed as a warehouse to ensure the facade of General Plan compliance is kept. However, details about the building throughout the document, including the EIR's statement regarding future operational employment estimates based on the General Plan default rates are "likely high based on the proposed building type," indicating that the proposed building will not operate within the permitted uses of the Innovation land use designation.

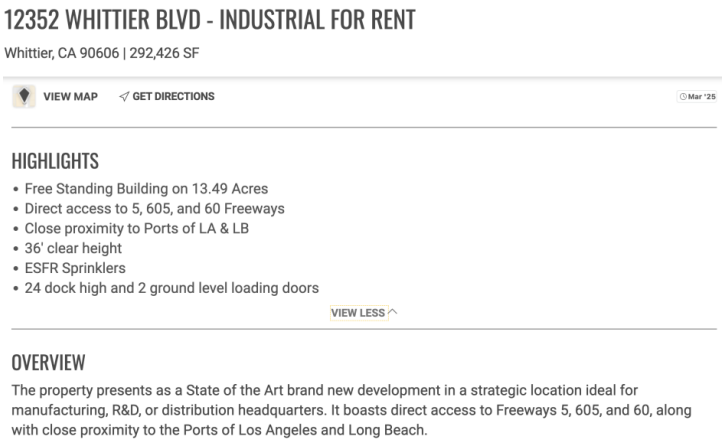
Additionally, Figure 3-4: Conceptual Site Plan indicates that the Distribution portion of the building will utilize 145,020 s.f of the overall building space. This is the largest portion of the building (manufacturing area is 137,439 s.f. and office area is 13,500 sf), indicating that Distribution (warehousing/storage) will be the primary use of the building.

I-15

Marketing materials[16] for the proposed building highlight that the the strategic location is ideal for distribution headquarters. ESFR (Early Suppression Fast Response) sprinklers are also included as a highlight. Viking Group, a fire protection manufacturer, describes ESFR sprinklers as "recommended for storage occupancies and warehouses, and are specifically designed to suppress high-challenge fires. In many applications, ESFR sprinklers can provide ceiling only protection, which eliminates the need for in-rack fire sprinklers for storage applications[17]." This further demonstrates that the building is designed and constructed to operate primarily as a distribution

I-16

[16] CBRE Marketing Materials https://www.showcase.com/12352-whittier-blvd-whittier-ca-90606/29181135/
[17] Viking Group https://www.vikinggroupinc.com/products/viking-fire-sprinklers/storage/esfr-early-suppression-fast-response-sprinklers



center/storage/warehouse facility that is explicitly prohibited by the Innovation General Plan land use designation. The EIR must be revised to include this information for analysis and a finding of significance due to this inconsistency.

I-16 (CONT.)

Table LUCC-3: Land Use Plan Buildout, 2040 Projections within the General Plan demonstrates that buildout conditions plan for 9,509,576 sf of non-residential building area. The project's 295,959 sf accounts for 3.1% of the General Plan's projected non-residential growth over 20 years, which is a significant amount of growth for a single project. The EIR is inadequate as an informational document as it has not provided a cumulative analysis of all non-residential projects approved since adoption of the General Plan to demonstrate that the project does not exceed the General Plan buildout analysis. This is vital as the EIR tiers a significant portion of its analysis from the General Plan EIR. A revised EIR must be prepared to include this information for analysis to adequately and accurately analyze all potentially significant environmental impacts.

I-17

5.4.9 Population and Housing

SCAG's Connect SoCal Demographics and Growth Forecast[18] notes that the City will add 3,000 jobs between 2016 - 2045. Utilizing the EIR's calculation of 592 employees based on the Whittier General Plan employment generation factors, the project represents 19.7% of the City s employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment over 29 years represents a significant amount of growth. The EIR must be revised to

I-18

[18] SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579

include this information for analysis. The EIR must also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed SCAG's employment or population growth forecast for the City. The project's 19.7% total increases exponentially when other commercial and industrial development activity is added to the calculation. The EIR must be revised to include this information for analysis and also include a cumulative development analysis of projects approved since 2016 and projects in the pipeline" to determine if the proposed project exceeds the General Plan growth estimates, SCAG's growth forecasts, and/or the buildout scenario and employment projections of the WBSP.

I-18 (CONT.)

The EIR concludes that "future employees largely would consist of existing residents of the City or *surrounding jurisdictions*." The "surrounding jurisdictions" of the project site are undefined and relying on the entire labor force within an undefined distance, notably the greater SCAG region, to fill the project's construction and operational jobs will increase already significant rates of VMT and emissions during all phases of construction and operations and a revised EIR must be prepared to account for longer worker trip distances. Additionally, a revised EIR must also provide demographic and geographic information on the location of qualified workers to fill the construction and operational positions in order to provide an accurate environmental analysis.

I-19

5.4.12 Transportation

Table 3: Project Trip Generation Comparison for VMT Purposes within Appendix I1: Transportation and Appendix I2: VMT provide trip generation reduction credits for "existing uses." It is not appropriate to model the existing vacant site utilizing default rates/average rates and provide trip reduction credits based on "existing uses" that do not actually exist. The EIR's Environmental Setting states that "The Site is currently vacant and has been vacant since 2019." The Executive Summary of the Traffic Appendix also states that "the previous manufacturing use that once occupied the existing building is no longer in operation." The EIR is inconsistent in that it picks and chooses the level of occupancy/operations of the site at its convenience to artificially reduce environmental impacts. The EIR is inadequate as an environmental document as the Project Description states that the site is vacant and uninhabited while the Transportation analysis models the project site as fully occupied and operational in order to present unduly low "net" operational impacts of the proposed project that are below significance thresholds. The EIR and all analysis employing reductions credits for "existing uses," including the Transportation analysis, must be revised to remove any credit given in order to accurately and adequately analyze the project's significant environmental impacts in accordance with CEQA.

I-20

It is clear that this is an effort to artificially appease the City's VMT Analysis Guidelines[19]. The Appendix states that "the proposed project satisfies the City-established screening criteria for small projects that generate 110 or fewer daily passenger car trips and may be presumed to result in a less than significant VMT impact." However, the Appendix leaves out that the VMT Analysis Methodology Section of the City's VMT Guidelines states that "If an EIR is required, baseline conditions should be tied to the NOP date." The NOP date and Environmental Setting indicate that the buildings on the project site are vacant and not operational.

Removing the "existing uses" trip generation credits indicates that the project will generate 845 daily trips, including 104 PCE Trips during the AM Peak Hour and 106 PCE Trips during the PM Peak Hour. Therefore, a revised TIA, LOS, and VMT analysis are required and must be included as part of a revised EIR.

The EIR has not analyzed the project in accordance with the City Guidelines and utilizes an artificially low "net new trips" generated by the project in order to exempt itself from conducting a project-specific LOS/VMT analysis. The project trip generation must be revised to remove any credit given for the existing buildings in order to accurately and adequately analyze the project's trip generation in accordance with the City's Guidelines and the City's General Plan LOS requirements.

I-21

Further, the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a warehouse, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's actual VMT generated is not consistent with the significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

I-22

[19] Whittier VMT Analysis Guidelines, Agenda Item 5.A
https://online.cityofwhittier.org/OnBaseAgendaOnline/Documents/ViewDocument/Planning_Commission_-_Parking_Transportation_Commission_-_J_3693_Agenda_Packet_8_26_2021_6_30_00_PM.pdf?meetingId=3693&documentType=AgendaPacket&itemId=0&publishId=0&isSection=false

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. There are no exhibits depicting the available truck turning radius at the intersection of the project driveways and Whittier Blvd. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. Notably, the parking stalls are adjacent to the south of the truck/trailer loading docks and also located within the middle of the truck court. These parking stalls that may be in use at any time and further restrict truck/trailer movement on the site. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts. I-23

Additionally, the EIR has not provided any analysis of the available horizontal and vertical sight distance at the intersection of the project driveways and adjacent streets. Sight distance is the continuous length of street ahead visible to the driver. At unsignalized intersections, corner sight distance must provide a substantially clear line of sight between the driver of the vehicle waiting on the minor road (driveway) and the driver of an approaching vehicle. A revised EIR must be prepared with this analysis based on the American Association of State Highway and Transportation Officials (AASHTO) Stopping Sight Distance requirements. I-24

6.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and only two others - Building Reuse Alternative and Reduced Project Alternative. The EIR does not evaluate a reasonable range of alternatives as only one alternative beyond the required No Project alternative is analyzed. The EIR does not include an alternative that meets the project objectives and also eliminates all of the project's significant and unavoidable impacts. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This could include alternatives such as development of the site with a project that reduces all of the proposed project's significant and unavoidable impacts to less than significant level, and/or a mixed-use project that provides affordable housing and local-serving commercial uses that may reduce VMT, GHG emissions, and improve Air Quality. I-25

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental I-26

documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

Sincerely,

Gary Ho
Blum, Collins & Ho LLP

Attachments:
1. SWAPE Analysis

I-26
(CONT.)

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

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September 8, 2023

Gary Ho
Blum, Collins & Ho LLP
707 Wilshire Blvd, Ste. 4880
Los Angeles, CA 90017

Subject: Comments on the Whittier Boulevard Business Center Project (SCH No. 2022120346)

Dear Mr. Ho,

We have reviewed the July 2023 Draft Environmental Impact Report ("DEIR") for the Whittier Boulevard Business Center ("Project") located in the City of Whittier ("City"). The Project proposes to construct 295,959-square-feet ("SF") of manufacturing, assembly, research and development (R&D), and light industrial space and 417 parking stalls on the 13.49-acre site.

Our review concludes that the DEIR fails to adequately evaluate the 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 may be underestimated and inadequately addressed. A revised Environmental Impact Report ("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 environment.

I-27

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[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

I-28

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. 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 are utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

I-28 (CONT.)

According to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (p. 4.3-17). However, this poses a problem as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix B, pp. 175):

Screen	Justification
Land Use	13.49 ac site w/ 295,959 sf industrial building (footprint 288,959 sf or 6.63 ac), parking lot with 417 spaces, 78,889 sf landscaping, & assumed remainder ~1.29 acres hardscape.
Construction: Construction Phases	Per project applicant, construction to begin 12-1-2023 with demo lasting 52 days, site prep 9 days, grading 42 days, construction 153 days, paving 42 days, and coating 94 days. Existing ~213,430 sf bldg and ~305,150 sf existing paving to be demolished (total demo = ~518,580). Site anticipated to balance.
Operations: Vehicle Data	Per Trip Gen Memo, 3.37 trips/TSF/day. Percentages changed to 83.1% autos (H-W) & 16.9% trucks (W-O). Per SCAQMD W-O trip length changed to 40 miles.
Operations: Fleet Mix	Revised vehicle fleet mix per Trip Gen Memo of 83.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks.

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

I-29

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.
[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

I-29 (CONT.)

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 4.3-17). Regardless, when reviewing the Project's CalEEMod output files, provided in the Air Quality, Global Climate Change, HRA, and Energy Impact Analysis ("AQ, HRA, & GHG Analysis") as Appendix B to the DEIR, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. As such, the Project's construction emissions are underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction of the Project will have on local and regional air quality.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "19391 Whittier Boulevard Business Park" model includes changes to the default construction schedule (see excerpt below) (Appendix B, pp. 175).

I-30

Screen	Justification
Land Use	13.49 ac site w/ 295,959 sf industrial building (footprint 288,959 sf or 6.63 ac), parking lot with 417 spaces, 78,889 sf landscaping, & assumed remainder ~1.29 acres hardscape.
Construction: Construction Phases	Per project applicant, construction to begin 12-1-2023 with demo lasting 52 days, site prep 9 days, grading 42 days, construction 153 days, paving 42 days, and coating 94 days. Existing ~213,430 sf bldg and ~305,150 sf existing paving to be demolished (total demo = ~518,580). Site anticipated to balance.
Operations: Vehicle Data	Per Trip Gen Memo, 3.37 trips/TSF/day. Percentages changed to 83.1% autos (H-W) & 16.9% trucks (W-O). Per SCAQMD W-O trip length changed to 40 miles.
Operations: Fleet Mix	Revised vehicle fleet mix per Trip Gen Memo of 83.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks.

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix B, pp. 161):

I-31

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Demolition	Demolition	12/1/2023	2/12/2024	5.00	52.0
Site Preparation	Site Preparation	2/13/2024	2/23/2024	5.00	9.00
Grading	Grading	2/24/2024	4/23/2024	5.00	42.0
Building Construction	Building Construction	4/24/2024	11/22/2024	5.00	153
Paving	Paving	8/22/2024	10/20/2024	5.00	42.0
Architectural Coating	Architectural Coating	8/6/2024	12/15/2024	5.00	94.0

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.
[5] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

"Per project applicant, construction to begin 12-1-2023 with demo lasting 52 days, site prep 9 days, grading 42 days, construction 153 days, paving 42 days, and coating 94 days. Existing ~213,430 sf bldg and ~305,150 sf existing paving to be demolished (total demo = ~518,580). Site anticipated to balance" (Appendix B, pp. 175)

Furthermore, the DEIR provides the following construction duration table (see excerpt below) (p. 3-8, Table 3-2):

Table 3-2 Estimated Construction Schedule

Phase Name	Work Days
Demolition	52
Site Preparation	9
Grading	42
Construction	153
Paving	42
Architectural Coatings	94

(Ganddini, 2023a, Table 26)

I-31 (CONT.)

Additionally, the AQ HRA, & GHG Analysis, referenced above as "Ganddini 2023a" provides the following table (see excerpt below) (p. 105, Table 26).

Table 26
Construction Equipment Fuel Consumption Estimates

Phase	Number of Days	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	HP hrs/day	Total Fuel Consumption (gal diesel fuel)[1]
Demolition	52	Concrete/Industrial Saws	1	8	33	0.73	193	542
	52	Excavators	3	8	36	0.38	328	923
	52	Rubber Tired Dozers	2	8	367	0.40	2,349	6,602
Site Preparation	9	Rubber Tired Dozers	3	8	367	0.40	3,523	1,714
	9	Tractors/Loaders/Backhoes	4	8	84	0.37	995	484
Grading	42	Excavators	2	8	36	0.38	219	497
	42	Graders	1	8	148	0.41	485	1,102
	42	Rubber Tired Dozers	1	8	367	0.4	1,174	2,666
	42	Scrapers	2	8	423	0.48	3,249	7,375
	42	Tractors/Loaders/Backhoes	2	8	84	0.37	497	1,129
Building Construction	153	Cranes	1	7	367	0.29	745	6,161
	153	Forklifts	3	8	82	0.2	394	3,255
	153	Generator Sets	1	8	14	0.74	83	685
	153	Tractors/Loaders/Backhoes	3	7	84	0.37	653	5,398
	153	Welders	1	8	46	0.45	166	1,370
Paving	42	Pavers	2	8	81	0.42	544	1,236
	42	Paving Equipment	2	8	89	0.36	513	1,164
	42	Rollers	2	8	36	0.38	219	497
Architectural Coating	94	Air Compressors	1	6	37	0.48	107	541
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								43,341

I-32

4

However, the changes to the individual construction phase lengths remain unsubstantiated as the DEIR fails to provide an adequate source for the individual construction phase lengths. The source, provided as Table 26 above, only justifies the construction equipment consumption estimations. This is incorrect, as the DEIR fails to directly address the assumptions made in the estimated construction schedule provided above. As the DEIR fails to provide an adequate source for the revised construction phase lengths, we cannot verify the changes. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 12 months.[6]

These unsubstantiated changes present an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[7]

> *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.

I-32 (CONT.)

By disproportionately extending the construction phase lengths without proper justification, the models assume there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. Therefore, the model underestimates the peak daily emissions associated with construction and should not be relied upon to determine Project significance. The model should have instead proportionately altered all phase lengths to match the proposed construction duration of 12 months.[8]

Unsubstantiated Changes to Operational Vehicle Fleet Mix

Review of the CalEEMod output files demonstrates that the "19391 Whittier Boulevard Business Park" model includes changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B, pp. 175).

I-33

[6] See Attachment A for proportionately altered construction schedule.
[7] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.
[8] See Attachment A for proportionately altered construction schedule.

Screen	Justification
Land Use	13.49 ac site w/ 295,959 sf industrial building (footprint 288,959 sf or 6.63 ac), parking lot with 417 spaces, 78,889 sf landscaping, & assumed remainder ~1.29 acres hardscape.
Construction: Construction Phases	Per project applicant, construction to begin 12-1-2023 with demo lasting 52 days, site prep 9 days, grading 42 days, construction 153 days, paving 42 days, and coating 94 days. Existing ~213,430 sf bldg and ~305,150 sf existing paving to be demolished (total demo = ~518,580). Site anticipated to balance.
Operations: Vehicle Data	Per Trip Gen Memo, 3.37 trips/TSF/day. Percentages changed to 83.1% autos (H-W) & 16.9% trucks (W-O). Per SCAQMD W-O trip length changed to 40 miles.
Operations: Fleet Mix	Revised vehicle fleet mix per Trip Gen Memo of 83.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks.

However, these changes remain unsubstantiated. As previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, the model's fleet mix percentages are not provided whatsoever. Until the DEIR verifies that the model includes the correct breakdown of every vehicle type that will access the Project site during operations, we cannot verify that the values included in the model are accurate. [9]

I-33 (CONT.)

These unsubstantiated changes present an issue, as CalEEMod uses operational vehicle fleet mix percentages to calculate the Project's operational emissions associated with on-road vehicles.[10] By including several unsubstantiated changes to the default operational vehicle fleet mix percentages, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate Project's construction-related and operational emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the DEIR. In our updated model, we proportionately altered the individual construction phase lengths to match the proposed duration of 12 months and omitted the unsubstantiated changes to the operational vehicle fleet mix.[11]

I-34

Our updated analysis estimates that the Project's construction-related reactive organic gases ("ROG") emissions exceed the applicable South Coast Air Quality Management District ("SCAQMD") threshold of 75 pounds per day ("lbs/day"), as referenced by the DEIR (p. 5-13, Table 5-2) (see table below).

[9] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 38.
[10] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 36.
[11] See Attachment B for CalEEMod output files.

SWAPE Criteria Air Pollutant Emissions	
Construction	**ROG** (lbs/day)
DEIR	33.1
SWAPE	196.2
% Increase	493%
SCAQMD Threshold	**75**
Exceeds?	***Yes***

I-34 (CONT.)

As demonstrated above, the Project's combined construction-related ROG emissions, as estimated by SWAPE, increase by approximately 493% and exceed the applicable SCAQMD significance threshold. Our model demonstrates 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, a revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the DEIR and associated documents, we have determined that the development of the proposed Project would add to the disproportionate health risk impacts posed to community members living, working, and going to school within the immediate area of the Project site. According to SCAQMD:

> "Those living within a half mile of warehouses are more likely to include communities of color, have health impacts such as higher rates of asthma and heart attacks, and a greater environmental burden."[12]

I-35

In particular, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.[13] Another study similarly indicates that "neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing facilities."[14] Additionally, a report authored by the Inland Empire-based People's Collective for Environmental Justice and University of Redlands states:

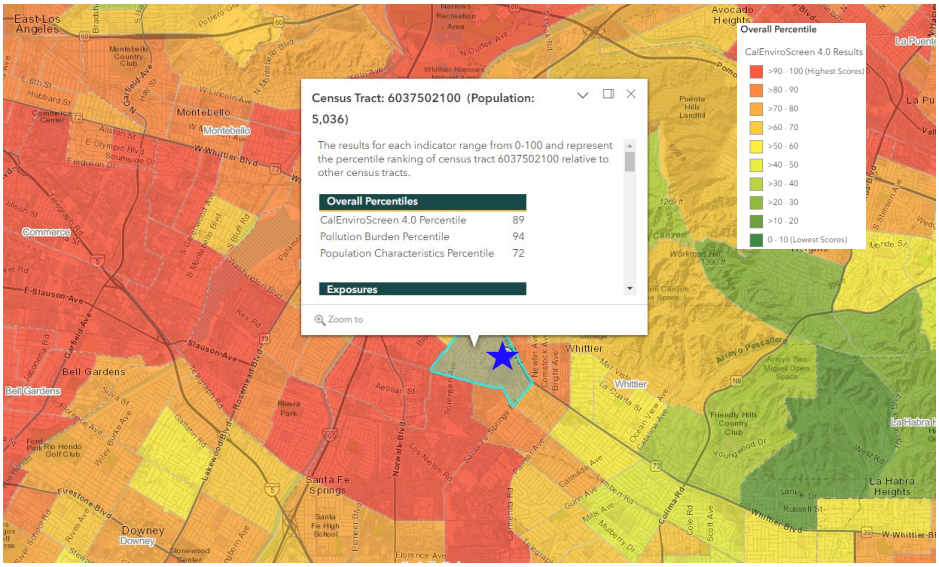
[12] "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.
[13] "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.
[14] "Location of warehouses and environmental justice: Evidence from four metros in California." Metro Freight Center of Excellence, January 2018, *available at:* https://www.metrans.org/assets/research/MF%201.1g_Location%20of%20warehouses%20and%20environmental%20justice_Final%20Report_021618.pdf, p. 21.

"As the warehouse and logistics industry continues to grow and net exponential profits at record rates, more warehouse projects are being approved and constructed in low-income communities of color and serving as a massive source of pollution by attracting thousands of polluting truck trips daily. Diesel trucks emit dangerous levels of nitrogen oxide and particulate matter that cause devastating health impacts including asthma, chronic obstructive pulmonary disease (COPD), cancer, and premature death. As a result, physicians consider these pollution-burdened areas 'diesel death zones.'"[15]

I-35 (CONT.)

It is evident that the continued development of industrial warehouses within these communities poses a significant environmental justice challenge. However, the acceleration of warehouse development is only increasing despite the consequences on public health.

Whittier, the setting of the proposed Project, has long borne a disproportionately high pollution burden compared to the rest of California. When using CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census tract in the State for pollution and socioeconomic vulnerability, we found that the Project's census tract is in the 94th percentile of most polluted census tracts in the State (see excerpt below).[16]

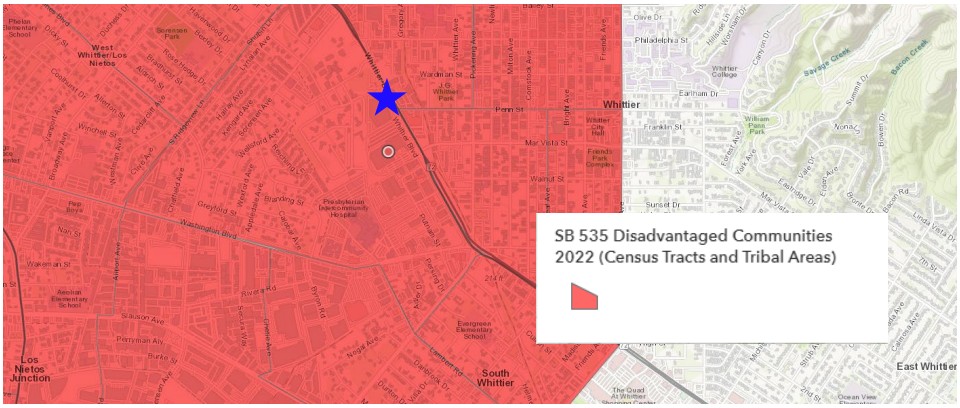


I-36

[15] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

[16] "CalEnviroScreen 4.0." California Office of Environmental Health Hazard Assessment (OEHHA), October 2021, *available at:* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.

Additionally, according to CalEnviroScreen's SB 535 Disadvantaged Communities Map, the Project site is located in a designated disadvantaged community (see excerpt below).[17]



SB 535 provides funding for development projects that provide a benefit to disadvantaged communities. CalEPA has been given the responsibility for identifying those communities based on "geographic, socioeconomic, public health, and environmental hazard criteria."[18] Therefore, as the Project site is located in a designated disadvantaged community, and Project's census tract already exhibits a high cancer risk, development of the proposed Project would disproportionately contribute to and exacerbate the health conditions of nearby residents.

I-37

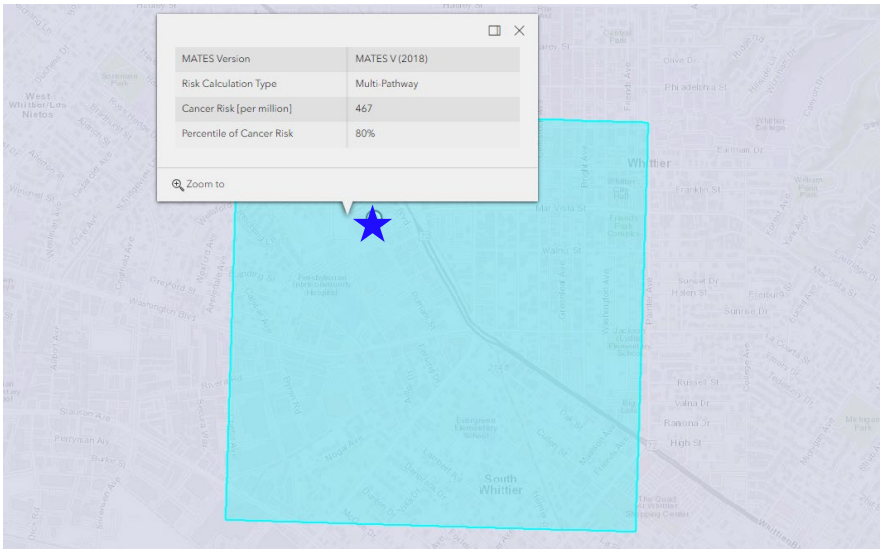
Furthermore, the Data Visualization Tool for Mates V, a monitoring and evaluation study conducted by SCAQMD, demonstrates that the City already exhibits a heightened residential carcinogenic risk from exposure to air toxics. Specifically, the location of the Project site is in the 80th percentile of highest cancer risks in the South Coast Air Basin, with a cancer risk of 467 in one million (see excerpt below).[19]

I-38

[17] "SB 535 Disadvantaged Communities (2022 Update)." California Environmental Protection Agency, *available at:* https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/

[18] "Final Designation of Disadvantaged Communities." California Environmental Protection Agency, *available at:* https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf?emrc=e05e10.

[19] "Residential Air Toxics Cancer Risk Calculated from Model Data in Grid Cells." MATES V, 2018, *available at:* https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Click-tabs-for-other-data%2CGridded-Cancer-Risk; see also: "MATES V Multiple Air Toxics Exposure Study." SCAQMD, *available at:* http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.



I-38 (CONT.)

Therefore, development of the proposed warehouse would disproportionately contribute to and exacerbate the health conditions of the residents in Whittier.

In April 2022, the American Lung Association ranked Los Angeles County as the third worst for ozone pollution in the nation.[20] This year, the County continues to face the worst ozone pollution, as it has seen the highest recorded Air Quality Index ("AQI") values for ground-level ozone in California.[21] The U.S. Environmental Protection Agency ("EPA") indicates that ozone, the main ingredient in "smog," can cause several health problems, which includes aggravating lung diseases and increasing the frequency of asthma attacks. The U.S. EPA states:

> "Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma."[22]

I-39

Furthermore, regarding the increased sensitivity of early-life exposures to inhaled pollutants, the California Air Resources Board ("CARB") states:

> "Children are often at greater risk from inhaled pollutants, due to the following reasons:

[20] "State of the Air 2022." American Lung Association, April 2022, *available at:* https://www.lung.org/research/sota/key-findings/most-polluted-places.
[21] "High Ozone Days." American Lung Association, 2022, *available at:* https://www.lung.org/research/sota/city-rankings/states/california.
[22] "Health Effects of Ozone Pollution." U.S. EPA, May 2021, *available at:* https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

- Children have unique activity patterns and behavior. For example, they crawl and play on the ground, amidst dirt and dust that may carry a wide variety of toxicants. They often put their hands, toys, and other items into their mouths, ingesting harmful substances. Compared to adults, children typically spend more time outdoors and are more physically active. Time outdoors coupled with faster breathing during exercise increases children's relative exposure to air pollution.

- Children are physiologically unique. Relative to body size, children eat, breathe, and drink more than adults, and their natural biological defenses are less developed. The protective barrier surrounding the brain is not fully developed, and children's nasal passages aren't as effective at filtering out pollutants. Developing lungs, immune, and metabolic systems are also at risk.

- Children are particularly susceptible during development. Environmental exposures during fetal development, the first few years of life, and puberty have the greatest potential to influence later growth and development."[23]

I-39 (CONT.)

A Stanford-led study also reveals that children exposed to high levels of air pollution are more susceptible to respiratory and cardiovascular diseases in adulthood.[24] Thus, given children's higher propensity to succumb to the negative health impacts of air pollutants, and as warehouses release more smog-forming pollution than any other sector, it is necessary to evaluate the specific health risk that warehouses pose to children in the nearby community.

According to the above-mentioned study by the People's Collective for Environmental Justice and University of Redlands, there are 640 schools in the South Coast Air Basin that are located within half a mile of a large warehouse, most of them in socio-economically disadvantaged areas.[25] Regarding the proposed Project itself, the DEIR states:

> "The nearest school to the Project Site is St. Mary's Catholic School, located approximately 0.28 mile northeast of the Project Site at 7218 Pickering Avenue on the opposite side of Whittier Boulevard." (p. 4.4-15).

As discussed, St. Mary's Catholic School is located approximately 0.28 miles from the Project site. Therefore, this Project poses a significant threat because, as outlined above, children are a vulnerable

[23] "Children and Air Pollution." California Air Resources Board (CARB), *available at:* https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.
[24] "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, *available at:* https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/.
[25] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

population that are more susceptible to the damaging side effects of air pollution. As such, the Project would add to the detrimental short-term and long-term health impacts on local children if approved.

I-39 (CONT.)

A revised EIR should be prepared to evaluate the contributions that the proposed Project would have towards the disproportionate impacts on the community adjacent to the Project site. The EIR should include an analysis of the impact on children and people of color who live and attend school in the surrounding area. Finally, in order to evaluate the cumulative air quality impact from the several warehouse projects proposed or built in a one-mile radius of the Project site, the revised EIR should also prepare a cumulative health risk assessment ("HRA") to quantify the adverse health outcome from the effects of exposure to multiple warehouses in the immediate area in conjunction with the poor ambient air quality in the Project's census tract.

I-40

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would result in net annual greenhouse gas ("GHG") emissions of 5,170.83 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year"), which exceeds the SCAQMD bright-line threshold of 3,000 MT CO_2e/year (see excerpt below) (p. 4.3-18, Table 4.3-2).

Table 4.3-2 Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Maximum Annual Operations	54.50	5,356.00	5,410.00	5.78	0.38	5,685.00
Construction[1]	0.00	24.40	25.40	0.00	0.00	25.83
Total Emissions	54.50	5,381.40	5,435.40	5.78	0.38	**5,710.83**

[1] Construction GHG emissions CO2e based on a 30-year amortization rate.
Source: (Ganddini, 2023a, Table 21)

As such, the DEIR concludes that the Project would result in a significant-and-unavoidable GHG impact, stating:

I-41

> "Although mandatory compliance with applicable State and local regulations would reduce Project-related GHG emissions, these requirements would not substantially reduce Project mobile source GHG emissions (i.e., emissions from construction equipment, passenger cars, and heavy-duty trucks). Compliance with Title 24 of the California Green Building Code already serves to reduce area-source GHG emissions to the maximum feasible extent. As advancements in vehicle technology progress, it is expected that a higher percentage of vehicles including trucks will be electric-powered than occurs today. However, until vehicle technology advances and electric trucks are more commonly commercially available with enough power to haul heavy loads over long distances, it is reasonable to assume that the truck fleet that will access the Project Site will be primarily diesel-powered. Mobile source GHG emissions are regulated by State and federal fuel standards and tailpipe emissions standards and are outside of the control and authority of the City, the Project Applicant, and future Project occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City) in order to be implemented. No other mitigation

measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact" (p. 4.3-20).

However, while we agree that the Project would result in a significant GHG impact, the DEIR's assertion that this impact is significant-and-unavoidable is incorrect. According to CEQA Guidelines § 15096(g)(2):

> "When an updated EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

As indicated above, an impact can only be labeled as significant-and-unavoidable after all available, feasible mitigation is considered. Here, the DEIR fails to implement any mitigation measures whatsoever. Therefore, the DEIR's conclusion that the Project's GHG emissions would be significant-and-unavoidable is unsubstantiated. To reduce the Project's GHG impacts to the maximum extent possible, additional feasible mitigation measures should be incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions." The Project should not be approved until a revised EIR is prepared, incorporating all feasible mitigation to reduce emissions to less-than-significant levels.

I-41 (CONT.)

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. In an effort to reduce emissions, the Project should consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.[26][27]

- Requiring off-road construction equipment to be hybrid electric-diesel or zero emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.

I-42

[26] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.
[27] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." State of California Department of Justice, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.
- Requiring all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030.
- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.

I-42
(CONT.)

- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

I-42
(CONT.)

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.

I-42 (CONT.)

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

I-43

A revised EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised 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

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.

I-44

Sincerely,

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

Paul E. Rosenfeld, Ph.D.

RESPONSES TO COMMENT LETTER I:
Blum, Collins and Ho (on behalf of Golden State Environmental Justice Alliance)

I-1 In this introductory comment, the Blum, Collins & Ho acknowledges reviewing the DEIR, requests that the Golden State Environmental Justice Alliance be added to the public interest list for the Project, and provides a summary of the Project. The introductory comment is noted. No further response is required.

I-2 Blum, Collins & Ho contends that the DEIR does not include a detailed floor plan or detailed grading plan; indicates that a tenant improvement floor plan exists on Figure 3-4, when the tenant is unknown; and does not provide information on the import/export materials. In response, the Project is proposed on a speculative basis without a known tenant and the conceptual site plan (and not a tenant improvement floor plan) is shown on Figure 3-4 of the DEIR. The impact analyses presented in the DEIR are based on building square footage and shell building design details and the intricate details of the building's future interior tenant improvement plans are not necessary to present a reasonable forecast of environmental effects. A conceptual grading plan is part of the Project's application materials on file with the City of Whittier, which shows that grading will balance on the site with 26,761 cubic yards of cut and fill, resulting in no import of export of soils. The earthwork quantities have been added to FEIR Subsection 3.4.2, *Construction Activities Schedule and Equipment Fleet*. The conceptual grading plan consists of six engineering sheets, has been added as FEIR Appendix J, and is available in the Project's record at the City of Whittier, 13230 Penn Street, Whittier, CA 90602.

I-3 Blum, Collins & Ho comments that the EIR discusses the 2016 RTP/SCS while the 2020 RTP/SCS should be utilized for threshold analysis, and contends that the Project is inconsistent with Goal 5, Goal 6, and Goal 7 of the 2020 RTP/SCS due to the Project's significant GHG emissions impacts. As stated on DEIR p. 2-3, SCAG's Regional Council approved and adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy ("Connect SoCal"). Connect SoCal is the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Project. DEIR pp. 4.3-18 and 19 inadvertently referenced the 2016-2040 RTP/SCS and the FEIR has been updated to rely on the 2020-2045 RTP/SCS, with no changes to the DEIR's conclusion that the Project would be consistent with or otherwise would not conflict with the RTP/SCS. To demonstrate consistency with the 2020-2045 RTP/SCS goals, refer to the table below.

Goal	Goal Statement	Project Consistency Discussion
1.	Encourage regional economic prosperity and global competitiveness.	No Conflict. This policy is implemented by the cities and counties within the SCAG region as part of comprehensive local and regional planning efforts. The Project would support this goal by redeveloping a site used for 70+ years as manufacturing with a new building to support a modern and competitive R&D, assembly, manufacturing, or a light industrial use and bring new employment and economic prosperity opportunities to the City of Whittier.

Goal	Goal Statement	Project Consistency Discussion
2.	Improve mobility, accessibility, reliability, and travel safety for people and goods.	No Conflict. EIR Subsection 5.4.12, *Transportation*, evaluates potential Project-related transportation impacts and concludes that the Project's impacts would be less-than-significant. The Project Site is adjacent to the Whittier Boulevard frontage road, and proposed Site-adjacent improvements to the frontage road include curb and gutter, removing the existing sidewalk and replacing with a new sidewalk, landscaping/irrigation, streetlights, fire hydrants, and two driveway curb cuts. There are no aspects of the Project that would adversely affect mobility, accessibility, reliability, and travel safety for people and goods in the City of Whittier or the SCAG region.
3.	Enhance the preservation, security, and resilience of the regional transportation system.	No Conflict. This policy is implemented by the cities and counties within the SCAG region as part of comprehensive local and regional planning efforts. There are no components of the proposed Project that would adversely affect the preservation, security, or resilience of the regional transportation system. The Project site is adjacent to the Whittier Boulevard frontage road and would not physically affect Whittier Boulevard or any other element of the regional transportation system.
4.	Increase person and goods movement and travel choices within the transportation system.	No Conflict. This policy is implemented by the cities and counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would redevelop a property used for 70+ years as manufacturing with a new building to be occupied by a R&D, assembly, manufacturing, or light industrial use. The redevelopment of a vacant property with an improved public street frontage, improved sidewalk, and provision of on-site bicycle racks would increase the movement of goods and people.
5.	Reduce greenhouse gas emissions and improve air quality.	No Conflict. The Project would redevelop a property used for 70+ years as manufacturing with a new building to be occupied by a modern R&D, assembly, manufacturing, or light industrial use. Redevelopment of the property as proposed would produce GHG and air pollutant emissions but would reduce GHG emissions and improve air quality as compared to re-occupancy of the existing building (see DEIR Subsection 6.3.2, *Building Reuse Alternative*). Also, the introduction of a new

Goal	Goal Statement	Project Consistency Discussion
		employment use on the Site would reduce worker commute distances in the local area by providing jobs in close proximity to housing.
6.	Support healthy and equitable communities.	No Conflict. The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years and the Site's redevelopment will result in the abatement of hazardous materials and the implementation of soil management and remediation efforts to reduce pollution burden in the community. Also, the proposed building would be constructed to CALGreen standards and thus reduce pollution burden as compared to re-occupancy of the existing building. Air quality is addressed in EIR Subsection 5.4.3, *Air Quality*, which demonstrates that the Project's air pollutant emissions and effects on human health would be less than significant.
7.	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. This policy is implemented by the cities and counties within the SCAG region as part of comprehensive long-range planning efforts. The Project would redevelop a property used for 70+ years as manufacturing with a new building to be occupied by a modern R&D, assembly, manufacturing, or light industrial use. Redevelopment of the property as proposed would reduce GHG emission as compared to re-occupancy of the existing building (see DEIR Subsection 6.3.2, *Building Reuse Alternative*) and would support an integrated development pattern and transportation network by replacing a vacated site and building with a new employment use in an urban infill community context.
8.	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Not Applicable. This policy provides guidance to leverage new transportation technologies and data-driven solutions that result in more efficient travel. There are no components of the proposed Project that would preclude the region's ability to implement this goal.
9.	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	Not Applicable. The Project does not include any residential uses, and therefore has no potential to conflict with this goal.
10.	Promote conservation of natural and agricultural lands and restoration of habitats.	Not Applicable. The Project site has been developed for the past 70+ years, is surrounded by developed uses, has contaminated soils, and offers no opportunities for the conservation and

Goal	Goal Statement	Project Consistency Discussion
		restoration of natural lands, habitats, and agriculture.

I-4 Blum, Collins & Ho opines that in the context of irreversible environmental impacts and growth inducing impacts, the DEIR did not model the Project's energy consumption in compliance with Title 24 modeling software, does not meaningfully discuss the Project's significant and unavoidable GHG and Cultural Resources impacts, or the Project's impacts within a disadvantaged community. In response to this comment, Subsection 5.2 has been updated to discuss the Project's consistency with the Site's General Plan designation and zoning classification, and the significant impacts resulting from the Project. Subsection 5.3 have been supplemented in the FEIR to discuss why the Project would not represent significant growth that would induce growth on other properties. In regard to energy consumption software, the California Building Energy Code Compliance (CBECC) software is the State's approved energy compliance software used specifically for Title 24 compliance, and would be required to be used for any development project at the time of its physical building construction (approximately 12-18 months after entitlement). CBECC modeling software is used to confirm that a final building design, with detailed information included in its construction drawings, is Title 24 compliant. The Project's final designs and construction drawings are not available at this time and are not typically prepared until after a proposed development project is approved/entitled. Accordingly, the DEIR and underlying *Technical Appendix B* correctly use CalEEMod to estimate energy demand based on the Project's application materials submitted to the City for entitlement. Since the occupant of the Project's building is unknown at this time, and information about the future building user's energy use is also not available at this time, it is appropriate to rely upon the CalEEMod default assumptions which have been derived by the California Air Pollution Control Officers Association (CAPCOA) based on survey data. There is no requirement in CEQA to show specific compliance with Title 24 based on conceptual building designs that are proposed at the entitlement stage of a project's approval process. As such, no revisions are warranted regarding energy consumption in EIR Subsections 5.2 or 5.3.

I-5 Blum, Collins & Ho claims that it is not appropriate to provide trip reduction credits for the Project site's existing building. First, the only topic in which a trip reduction credit was applied was for the vehicle miles traveled (VMT) analysis. No other analysis topics considered reduction credits for operation of the existing building in order to 1) provide conservative analyses and 2) because operational characteristics for the existing building upon which reduction credits could be based (the building's energy use, for example) could not be credibly established. For purposes of VMT, however, application of a trip reduction credit was appropriate because trip generation rates based on building size alone could be firmly established by the application of trip generation rates from the Institute of Traffic Engineers (ITE) Trip Generation Manual. The ITE Trip Generation Manual is the most commonly and widely accepted source used by transportation engineers and CEQA lead agencies to calculate trip generation data for land use development projects. CEQA allows an environmental baseline to take account of conditions that predate publication of the NOP, including representative historical conditions, provided use of such a baseline is supported by substantial evidence. The ITE Manual constitutes substantial evidence of the most widely accepted source of trip generation data.

Since the existing building could be re-occupied with manufacturing land use under current entitlements, it is appropriate to consider the net new trips that are expected to result from the proposed Project relative to the existing building/previous use.

I-6 Blum, Collins & Ho contends that the Project represents a significant amount of growth in the City and a cumulative analysis should be included in DEIR Section 5.0, *Other CEQA Considerations*. The City disagrees that the Project represents a significant amount of growth in Whittier. The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years with a similar use in compliance with the site's existing Innovation (INN) General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation. As explained in the DEIR, the Project Site has 213,430 s.f. of existing building space (DEIR p. 2-4) and is proposed to be redeveloped with a 295,959 s.f. building (DEIR p. 3-2). The addition of 82,529 s.f. of building space, consistent with the Site's General Plan designation and zoning classification is consistent with the City's planned growth. In response to this comment, a discussion of cumulative growth has been added to the FEIR under Subsections 5.2 and 5.3, but the DEIR's conclusion that the Project would result in less than significant impacts is unchanged.

I-7 Blum, Collins & Ho contends that the EIR does not include an adequate cumulative analysis of non-residential project growth in Whittier, claiming that the Project represents 3.1% of the City's growth relying on City General Plan Table LUCC-3. The commenter misinterprets Table LUCC-3, which shows the City's total planned non-residential capacity, including existing buildings. The Project Site has 213,430 s.f. of existing building space (DEIR p. 2-4) and is proposed to be redeveloped with a 295,959 s.f. building (DEIR p. 3-2). The addition of 82,529 s.f. of building space is consistent with the Site's INN General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation and thus falls within the City's planned growth assumptions. The addition of 82,529 s.f. of non-residential building space on a site planned and zoned for the additional space represents less than one-one-hundredth of one percent (0.008 percent) of the City's total non-residential building space capacity. As such, redeveloping the Project Site as proposed has no reasonable potential of resulting in a cumulatively considerable growth-inducing impact in context with the City's General Plan buildout capacity.

I-8 Blum, Collins & Ho references an attachment from SWAPE; states that the EIR does not include analyses of relevant environmental justice issues; and states that the Project's census tract ranks worse than 94% of the State in overall pollution burden. DEIR Section 2.0, *Environmental Setting*, includes a discussion of pollution burden and discloses the CalEnviroScreen indicators for the Project's census tract. Additionally, DEIR Subsection 5.4.3, *Air Quality*, includes a discussion of the health risk assessment associated with the Project, based on DEIR Technical Appendix B. The health risk assessment concluded that the Project would not exceed any of the SCAQMD localized significance thresholds (LSTs) during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

I-9 Blum, Collins & Ho provides information on how the Project's census tract ranks compared to the rest of the State. This information is noted. DEIR Section 2.0, *Environmental Setting*, includes a discussion of pollution burden and the CalEnviroScreen indicators for the Project's census tract. The commenter is reminded that the Project entails redeveloping a property that has been used for manufacturing for the last 70+ years and the Site's redevelopment will result in the abatement of hazardous materials and the implementation of soil management and remediation efforts to reduce pollution burden in the community. The proposed building also would be constructed to CALGreen standards and thus reduce pollution burden as compared to re-occupancy of the existing building.

I-10 Blum, Collins & Ho provides information on the diversity, education level, and poverty status of the Project's census tract. This information is noted. DEIR Section 2.0, *Environmental Setting*, includes a discussion of pollution burden and the CalEnviroScreen indicators for the Project's census tract, including socioeconomic factors. The Project would introduce a new employment-generating use into the community, result in the abatement of hazardous materials and the implementation of soil management and remediation efforts on the Site to reduce pollution burden in the community, and cure the existing, blighted condition of the property. Further, the Project's air pollutant impacts including impacts to human health were determined to be less-than-significant using SCAQMD significance thresholds as discussed in DEIR Subsection 5.4.3, *Air Quality*, and DEIR Technical Appendix B.

I-11 Blum, Collins & Ho states that the DEIR does not discuss that the Project's census tract and several surrounding census tracts are disadvantaged communities and has not considered the Project's GHG impacts in relation to the SB 535 status of the Project's census tract and surrounding area. The Project Site is indeed identified as a SB 535 disadvantaged community in DEIR Section 2.0, *Environmental Setting* (DEIR p. 2-9). California's Global Warming Solutions Act of 2006 (AB 32) charges polluters for their GHG emissions, and the money goes into a Greenhouse Gas Reduction Fund (GGRF). SB 535 requires that at least 25% of these funds go to projects that benefit disadvantaged communities, with at least 10% going to projects located within these communities. This means hundreds of millions of dollars in investments that promote clean air, jobs, transportation, and energy efficiency are targeted to benefit disadvantaged communities. These investments are irrelevant to the proposed Project. However, the Project entails the redevelopment of a vacant property used for 70+ years as a manufacturing use and would introduce a new employment-generating use into the community, result in the abatement of hazardous materials and the implementation of soil management and remediation efforts on the Site to reduce pollution burden in the community, and cure the existing, blighted condition of the property. Although the Project would produce GHG emissions, the level of GHG emissions would be less than if the existing buildings on the site were to be re-occupied (see DEIR Subsection 6.3.2, *Building Reuse Alternative*).

I-12 Blum, Collins & Ho states that the CalEEMod-based modeling used in the EIR and appendices does not comply with the 2022 Building Energy efficiency Standards; underreports the Project's significant energy impacts and fuel consumptions; and that the California Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24. The commenter is incorrect. As stated in Response I-4, the CBECC software is used to confirm that a final building design, with detailed information

included in its construction drawings, is Title 24 compliant. The Project's final designs and construction drawings are not available at this time and are not typically prepared until after a proposed development project is approved/entitled. Accordingly, the DEIR and underlying *Technical Appendix B* correctly use CalEEMod to estimate energy demand based on the Project's application materials submitted to the City for entitlement. Since the occupant of the Project's building is unknown at this time, and information about the future building user's energy use is also not available at this time, it is appropriate to rely upon the CalEEMod default assumptions which have been derived by the California Air Pollution Control Officers Association (CAPCOA) based on survey data. There is no requirement in CEQA to show specific compliance with Title 24 based on conceptual building designs that are proposed at the entitlement stage of a project's approval process. As such, no revisions are warranted regarding energy consumption in the FEIR.

I-13 Blum, Collins & Ho comments that the EIR does not consider the Project's significant and unavoidable cumulatively considerable impacts to GHG emissions and cultural resources in the land use and planning discussion and analysis, and that the Project is not consistent with several goals and policies of the General Plan. As discussed in DEIR Subsection 5.4.7, *Land Use and Planning*, the Project is consistent with the General Plan land use designation and zoning of the Project Site, and would not conflict with applicable goals, objectives, or policies of the Envision Whittier General Plan, zoning requirements of the SP (Workplace District of the WBSP) zone, City of Whittier Municipal Code requirements, or other applicable regulations (e.g., regulations promulgated by the SCAQMD) adopted for the purpose of avoiding or mitigating an environmental effect. EIR Section 4.1, Cultural Resources, discusses the significant impacts to the Project site, which is NRHP/CRHR eligible and a City of Whittier local historic landmark, and provides Mitigation Measures MM 4.1-1 and MM 4.1-2 to preserve the memory of the Ekco Products Company plant and its importance in the City of Whittier. EIR Section 4.3, Greenhouse Gas Emissions, discusses the Project's significant GHG emissions, and Mitigation Measures MM 4.3-1 through MM 4.3-10 have been added to the final EIR to further reduce emissions.

I-14 Blum, Collins & Ho states that a revised EIR must be prepared to provide a consistency analysis with all General Plan and WBSP goals and policies, and provides a list of such policies and goals. This is not required. It is well-established that a project does not have to be consistent with each and every goal or policy in a plan to be found consistent with the overall intent of the plan. Determination of consistency requires only that the proposed project be "compatible with the objectives, policies, general land uses, and programs specified in" the applicable plan. (Cal. Gov. Code § 66473.5.) The courts have interpreted this provision as requiring that a project be "in agreement or harmony with the terms of the applicable plan, not in rigid conformity with every detail" of it. (*San Franciscans Upholding the Downtown Plan v. City & County of San Francisco* (2002) 102 Cal.App.4th 656, 678; see also *Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807.) The Project is consistent with the General Plan land use designation and zoning of the Project Site, and the City has determined that the Project would not conflict with the Envision Whittier General Plan, Whittier Boulevard Specific Plan, City of Whittier Municipal Code requirements, or other applicable regulations.

I-15 Blum, Collins & Ho incorrectly comments that the DEIR avoids stating that the building is exclusively proposed as a warehouse to ensure the façade of General Plan compliance is kept. According to the Whittier Boulevard Specific Plan, distribution/storage is not a permitted primary use of the Project Site. As stated in DEIR Section 3.0, *Project Description*, the building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space in compliance with the Whittier Boulevard Specific Plan's Workplace District designation. The City has added a condition of approval to the Project specifying that distribution/storage shall be ancillary and shall thus be limited to no more than 49% of the building's usable floor space.

I-16 Blum, Collins & Ho comments that marketing materials and the use of Early Suppression Fast Response (ESFR) sprinklers indicate that the building is designed and constructed to operate primarily as a distribution center/storage/warehouse facility that is prohibited by the Innovation General Plan land use designation. Refer to Response I-15. As stated in DEIR Section 3.0, *Project Description*, the building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space in compliance with the Whittier Boulevard Specific Plan's Workplace District designation. The City has added a condition of approval to the Project specifying that distribution/storage shall be ancillary and shall thus be limited to no more than 49% of the building's usable floor space.

I-17 Blum, Collins & Ho comments that the EIR is inadequate as an informational document and has not provided a cumulative analysis of all non-residential projects approved since adoption of the General Plan to demonstrate that the Project does not exceed the General plan buildout analysis. This comment is a duplicate of Comment I-7. Refer to Response I-7.

I-18 Blum, Collins & Ho states under the analysis topic of Population and Housing that the Project's calculation of 592 estimated employees represents 19.7% of the City's employment growth from 2016 – 2045; that the EIR must be revised to include this information for analysis; and that the EIR must also provide a cumulative analysis to determine if the Project will exceed SCAG's employment or population growth forecast for the City. The commenter has taken the employment estimate out of context. The Project Site has 213,430 s.f. of existing building space (DEIR p. 2-4) and is proposed to be redeveloped with a 295,959 s.f. building (DEIR p. 3-2). The addition of 82,529 s.f. of building space is consistent with the Site's INN General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation and thus falls within the City's planned growth assumptions. The addition of 82,529 s.f. of non-residential building space would accommodate a projected addition of 179 employees above what the existing building would be projected to accommodate (1 employee per 500 s.f. of building space). Redeveloping the Project Site as proposed has no reasonable potential of resulting in a cumulatively considerable population and housing impact in context with the City's General Plan buildout capacity.

I-19 Blum, Collins & Ho questions the DEIR's assumption under the analysis topic of Population and Housing that enough existing and planned housing is located in the area to support future Project Site employees and states that the DEIR must provide demographic and geographic information on the

location of qualified workers to fill the construction and operational positions. First, the Project is proposed on a speculative basis and therefore it is not known what qualifications would be needed to fill the jobs offered by a speculative future employer. Also, it is yet unknown if the Project's building would be occupied by a new business generating new positions or an existing business transferring employees from another location. As such, it would be overly speculative to conduct a detailed demographic workforce analysis and it is sufficient for the DEIR to rely on reasonable assumptions. Further, even if the Project generated the demand for up to 592 new employees, the unemployment rate in Whittier is an average of 5%[3] (approximately 4,365 unemployed persons based on a population of 84,496[4]), which demonstrates that the Project has no reasonable potential to induce substantial population growth and thereby indirectly cause the development of new homes that would adversely affect the environment.

I-20 Blum, Collins & Ho claims that it is not appropriate to provide trip reduction credits for the Project site's existing building. First, the only topic in which a trip reduction credit was applied was for the vehicle miles traveled (VMT) analysis. No other analysis topics considered reduction credits for operation of the existing building in order to 1) provide conservative analyses and 2) because operational characteristics for the existing building upon which reduction credits could be based (the building's energy use, for example) could not be credibly established. For purposes of VMT, however, application of a trip reduction credit was appropriate because trip generation rates based on building size alone could be firmly established by the application of trip generation rates from the Institute of Traffic Engineers (ITE) Trip Generation Manual. The ITE Trip Generation Manual is the most commonly and widely accepted source used by transportation engineers and CEQA lead agencies to calculate trip generation data for land use development projects. CEQA allows an environmental baseline to take account of conditions that predate publication of the NOP, including representative historical conditions, provided use of such a baseline is supported by substantial evidence. The ITE Manual constitutes substantial evidence of the most widely accepted source of trip generation data. Since the existing building could be re-occupied with manufacturing land use under current entitlements, it is appropriate to consider the net new trips that are expected to result from the proposed Project relative to the existing building/previous use.

I-21 Blum, Collins & Ho suggests that a revised TIA, LOS, and VMT analysis are needed to remove the existing uses trip generation credits because the NOP date and environmental setting indicate that the buildings on the Project site are vacant and not operational, and as such, an artificially low "net new trips" generated was utilized. The LOS analysis did not consider a trip reduction credit, nor is LOS considered an environmental impact under CEQA. Regarding VMT, refer to Response I-20. The VMT analysis was appropriately prepared and no revisions to the VMT analysis or DEIR are necessary.

I-22 Blum, Collins & Ho comments that the EIR has underreported the quantity of VMT generated by Project operations because it excludes the high rates of truck/trailer/delivery van VMT associated with the operational nature of industrial uses, and that the Project's actual VMT is not consistent with the significance threshold and legislative intent of SB 743. As a point of clarification, the Project will not

[3] https://www.homefacts.com/unemployment/California/Los-Angeles-County/Whittier.html
[4] https://www.census.gov/quickfacts/fact/table/whittiercitycalifornia/PST045222

operate as a warehouse. As stated in DEIR Section 3.0, *Project Description*, the Project's proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space. As explained in the Project's Trip Generation Memorandum dated June 13, 2023, and attached as Appendix I2 to the DEIR, per the California Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) ["OPR Technical Advisory"], *"Proposed Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks."* Additionally, the City's VMT guidelines indicate that the VMT threshold for light industrial projects is based on home-based work VMT per employee. Therefore, it is appropriate to exclude the project-generated truck trips for VMT assessment purposes.

I-23 Blum, Collins & Ho comments that the EIR has not adequately analyzed the Project's potential to substantially increase hazards due to a geometric design feature or incompatible uses, or the Project's potential to result in inadequate emergency access; is lacking exhibits showing truck turning radius at Project driveways and on-site; and that the parking stalls located in the middle of the truck court further restrict truck/trailer movement. As discussed in DEIR Subsection 4.4, *Hazards and Hazardous Materials*, the Project was subject to the City's development review and permitting process and future building permits associated with the Project would be required to incorporate all applicable design and safety standards and regulations in the California Fire Code and the City of Whittier Municipal Code Chapter 15.12, Fire Code. The incorporation of applicable design and safety standards and regulations would ensure that the Project's development does not interfere with the provision of local emergency services. Hazards due to geometric design features are discussed in DEIR Subsection 5.4.12, *Transportation*. As discussed, the types of traffic generated during operation of the proposed Project (i.e., passenger cars and trucks) would be similar to existing conditions and would be compatible with the type of traffic observed along Project area roadways under existing conditions. In addition, all proposed improvements within the public right-of-way, which would be limited to frontage improvements along the Whittier Boulevard frontage road, would be installed in conformance with City design standards. The City reviewed the Project's application materials and determined that no hazardous transportation design features would be introduced through implementation of the Project. Truck turning movements in and out of the Project's proposed driveways are shown in the Project's application materials on file with the City of Whittier, labeled "Truck Turning-In Exhibit" and "Truck Turning-Out Exhibit" dated April 1, 2022, and have been added as Final EIR Appendix K. As stated on DEIR p. 3-7, to accommodate turning movements of trucks entering and exiting the Project Site's driveways, parking restrictions would occur along small segments of the frontage road near the Project Site's driveways. Accordingly, the Project would not create or substantially increase safety hazards due to a design feature or incompatible use, and impacts would be less than significant.

I-24 Blum, Collins & Ho comments that the DEIR has not provided any analysis of the available horizontal and vertical sight distance at the intersection of the Project driveways and adjacent streets. The City reviewed sight distance design at Project driveways as part of proposed Development Review Permit No. 21-0065. Refer to the truck turn templates added as Appendix K to the FEIR. The City's Community Development Department and Building and Safety Department will again review site

distance design as part of its review and approval of final landscape and irrigation plans as part of the building permit plan check process.

I-25 Blum, Collins & Ho comments that the EIR does not evaluate a reasonable range of alternatives as only one alternative beyond the required No Project alternative is analyzed, and does not include an alternative that meets the Project objectives and also eliminates the Project's significant impacts. To the contrary, three alternatives are analyzed in DEIR Section 6.0, *Alternatives*, the No Project Alternative, the Building Reuse Alternative, and the Reduced Project Alternative. The Building Reuse Alternative compares the environmental effects of the proposed Project with an alternative that would reuse the existing buildings on the property, thereby eliminating the Project's significant and unavoidable impact associated with demolition of a building that is historically significant for its former use as a post-World War II manufacturing facility. The Reduced Project Alternative would reduce the Project's proposed building size by 25 percent, for a total building footprint of 221,624 s.f., thereby avoiding the Project's significant and unavoidable cumulatively-considerable GHG impacts. Neither of these alternatives met all of the objectives of the Project. The alternatives suggested by the commenter to reduce all impacts to less than significant are not feasible. First, the suggested housing and mixed use alternative would not meet any of the Project objectives. Second, there is no feasible alternative under which the Project's significant and unmitigated effects could be reduced to less than significant other than the No Project Alterative. No alternative other than an alternative that retains the existing building would avoid the Project's significant impact related to the loss of a building with significant associative value to post WWII manufacturing. Also, retention and operation of the existing building would produce significant GHG impacts due to the existing building's older operating systems and the attraction of vehicle traffic that would emit GHG emissions above the significance threshold.

I-26 Blum, Collins & Ho concludes by stating that the Golden State Environmental Justice Alliance believes the EIR is flawed, requests a revised DEIR be prepared and requests to be added to the public interest list for subsequent Project notifications. This commenter's opinions are noted. The Golden State Environmental Justice Alliance will be added to the public interest list for the Project. The commenter is referred to FEIR Table F-2, *Errata Table of Additions, Corrections, and/or Revisions to the DEIR*, and to FEIR Section F.4, *No Recirculation of DEIR Required.* Based on the presented information, recirculation of the DEIR is not warranted according to the guidance set forth in Section 15088.5 of the CEQA Guidelines.

I-27 Blum, Collins & Ho attached a letter from SWAPE who comment that they reviewed the DEIR, that the DEIR fails to adequately evaluate air quality, health risk, and GHG impacts, and that a revised EIR should be prepared to adequately address and mitigate the potential air quality, health risk, and GHG impacts that the Project may have on the environment. The commenter is referred to Responses I-28 though I-44, which respond to SWAPE's specific comments and explain why the DEIR adequately evaluates the Project's impacts. Based on the presented information, recirculation of the DEIR is not warranted according to the guidance set forth in Section 15088.5 of the CEQA Guidelines.

I-28 SWAPE makes a statement that CalEEMod is typically used to evaluate air quality impacts and the output files disclose what parameters were used for the calculations. This comment is acknowledged.

CalEEMod version 2022.1.1.13 was appropriately used to calculate the Project's expected air quality impacts.

I-29 SWAPE claims that the CalEEMod version 2022.1 used in the DEIR was a soft release and fails to provide complete output files. CalEEMod version 2022.1.1.13, released on May 16, 2023, was appropriately used to calculate the Project's expected air quality impacts and was the most recent version of CalEEMod available at the time DEIR Technical Appendix B was prepared. Access to raw modeling files are available upon request from the City of Whittier, and the City received no such request for modeling files from SWAPE during the DEIR's comment period. The City did receive such a request from SCAQMD, and the modeling files were provided to SCAQMD. The modeling files will continue to be available as part of the Project's administrative record.

The modeling presented in DEIR Technical Appendix B was last revised June 27, 2023, and the CalEEMod 2022.1 Version at that time was no longer considered a "soft release." Pursuant to an email sent out by the California Air Pollution Control Officers Association (CAPCOA) on behalf of CalEEMod on December 22, 2022, CalEEMod Version 2022.1 was stated as "now ready for full release and general use for air quality, greenhouse gas, climate, and equity analyses." CalEEMod Version 2022.1 incorporates many updates in comparison to the previous version of the model, CalEEMod Version 2020. As of May 2023, it was stated that CAPCOA no longer provides support for CalEEMod Version 2020 and if the previous version of the model were to be utilized it is recommended that more up-to-date defaults be incorporated in the modeling (as provided by CAPCOA/CalEEMod via email dated May 1, 2023). In addition, Barbara Radlein, Program Supervisor, CEQA, at South Coast Air Quality Management District (SCAQMD) stated via personal email on July 27, 2022, that SCAQMD's "general guidance is that if an analysis for project is started using one version of CalEEMod, and mid-project a newer version of the model is released, we don't require a switch to the newer version. But if a new analysis for a project starts after the new version is "officially" released, we generally recommend, but not require, the newest version be used for the first six months of its release. After the new version has been available for six months, we require the newest version be used going forward." As June 27, 2023, is over 6 months after the "official" full release of CalEEMod version 2022.1, the use of CalEEMod version 2022.1 was required by SCAQMD.

The JSON file is the CalEEMod input file and was provided to SCAQMD for their review of the data. The CalEEMod Detailed Report output was included in the appendices of DEIR Technical Appendix B, and Section 8, User Changes to Default Data of the CalEEMod Output, details what data was modified and why. Therefore, although the output files are set up differently than the previous version, CalEEMod Version 2022.1 is the appropriate version of the modeling software to be used at the time modeling was conducted for the proposed Project. No revisions are required.

I-30 SWAPE incorrectly claims that the CalEEMod output files used several model inputs that are inconsistent with information disclosed in the DEIR, including a change to the default construction schedule. To the contrary, the construction phase duration schedule provided by the Project applicant and used in the CalEEMod modeling (Technical Appendix B, p. 161) matches the construction

schedule presented in EIR Table 3-2 (DEIR p. 3-8). The approximate 12 month schedule disclosed in the EIR is consistent with the more detailed schedule provided and used in the modeling.

I-31 SWAPE states that the CalEEMod user's guide requires any changes to model defaults, such as the change in the construction schedule, be justified. As stated in Responses I-30 and I-32, the Project's construction phase duration schedule and equipment list were provided by the Project applicant. (Personal communication from Oltmans Construction to Project Applicant, October 20, 2021.)

I-32 SWAPE contends that the construction equipment consumption estimations and construction phase durations are unsubstantiated and inconsistent. The construction equipment list that was provided by the Project applicant and used in the CalEEMod modeling (Technical Appendix B, p. 105) matches the equipment list presented in EIR Table 3-3 (DEIR p. 3-9).

I-33 SWAPE states that the CalEEMod output files show unsubstantiated changes to the default operational vehicle fleet mix percentages which may underestimate the Project's mobile-source operational emissions. The modeling files show that the operational vehicle fleet mix matches the fleet mix documented in the Project's traffic study (DEIR Technical Appendices I1 and I2). Access to raw modeling files are available upon request from the City of Whittier, and the City received no such request for modeling files from SWAPE during the DEIR's comment period. The City did receive such a request from SCAQMD, and the modeling files were provided to SCAQMD. The modeling files will continue to be available as part of the Project's administrative record.

As stated in the DEIR Technical Appendix B and the corresponding CalEEMod Detailed Report provided in Appendix B of Technical Appendix B, the Project's trip generation and vehicle mix data was obtained from the *12352 Whittier Boulevard Industrial Project Trip Generation Memorandum* (Trip Generation Memo) prepared by Ganddini Group, Inc. (June 13, 2023) which is contained as DEIR Technical Appendix I2. As shown in the Trip Generation Memo, the Project has a trip generation rate of 3.37 trips/1,000 s.f. of building space (TSF)/day with percentages of 83.1% autos and 16.9% trucks and a full vehicle fleet mix of 3.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks. As stated in response to other comments, CalEEMod provides default trip generation data, but because Project-specific data was available, the defaults were appropriately updated in the modeling. The CalEEMod Version 2022.1 does have differences in its output file in comparison to the older Version 2020; however, this does not discredit the modeling and/or the emissions reported. As stated in the justifications provided in the User's Changes to Default Data section of the CalEEMod output, these changes were in fact made within the model. In Section 8, User Changes to Default Data of the CalEEMod Output, it details the changes made to operations vehicle data. As shown in the provided information, the vehicle fleet mix and other trip generation related data were changed as stated in the justification comments. Furthermore, per SCAQMD guidance, it is more accurate to utilize the Project specific vehicle trip generation data and fleet mix than the CalEEMod defaults. As such, no modeling revisions are required.

I-34 SWAPE attempts to provide updated CalEEMod modeling which proportionately altered the individual construction phase lengths to match the 12-month duration. SWAPE provides no substantial

evidence to support the use of the proportional alteration when, as explained above, there are more accurate and appropriate Project specific inputs available from the Project and Project applicant.

I-35 SWAPE makes a general statement that development of the Project would add to the disproportionate health risk impact to the community and provides statistics regarding health risks of warehouses on surrounding communities. As a point of clarification, the proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, and light industrial, with ancillary distribution and storage space. The building's primary use is not a warehouse. The commenter is referred to Responses I-36 through I-40 for responses to SWAPE's more detailed comments on this topic.

I-36 SWAPE states that Whittier has a disproportionately high pollution burden, that the Project's census tract is in the 94th percentile of the most polluted census tracts in the state, and the acceleration of warehouse development is increasing despite the consequences to public health. As a point of clarification, the Project will not operate as a warehouse. As stated in DEIR Section 3.0, *Project Description*, the Project's proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space. The City has added a condition of approval to the Project specifying that distribution/storage shall only be ancillary to a permitted primary use and shall thus be limited to no more than 49% of the building's usable floor space.

As discussed in DEIR Section 5.4.3, *Air Quality*, a health risk assessment was prepared for the Project, which is included as DEIR Technical Appendix B, which concludes that the proposed Project would not exceed any of the SCAQMD localized significance thresholds (LSTs) during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

I-37 SWAPE state that the Project site is located in a designated disadvantaged community, that the Project's census tract already exhibits a high cancer risk, and that the Project would disproportionately contribute to and exacerbate the health conditions of nearby residents. As discussed in DEIR Subsection 5.4.3, *Air Quality*, a health risk assessment was prepared for the Project, which is included as DEIR Technical Appendix B, and concludes that the proposed Project would not exceed any of the SCAQMD localized significance thresholds (LSTs) during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

It is further noted that Environmental Justice is not a topic that is required to be evaluated or considered pursuant to CEQA Guidelines Sections 15120-15132 (Contents of Environmental Impact Reports). In addition, air quality impacts are not required to be assessed based on census tract locations.

Notwithstanding, the air quality analysis contained in the Draft EIR demonstrates that the Project would not expose any sensitive receptor, which includes receptors located in disadvantaged communities, to substantial concentrations of localized criteria pollutants or diesel particulate matter source emissions. To the contrary, the Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant (refer to DEIR pp. 5-8 to 5-24 and DEIR Technical Appendix B).

I-38 SWAPE states that the City already exhibits a heightened residential carcinogenic risk from exposure to air toxins, that the Project Site is in the 80th percentile of highest cancer risks in the South Coast Air Basin, and that the proposed warehouse would disproportionately contribute to and exacerbate health conditions of Whitter residents. As a point of clarification, the Project will not operate as a warehouse. As stated in DEIR Section 3.0, *Project Description*, the Project's proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space. The City has added a condition of approval to the Project specifying that distribution/storage shall only be ancillary to a permitted primary use and shall thus be limited to no more than 49% of the building's usable floor space.

As discussed in DEIR Subsection 5.4.3, *Air Quality*, a health risk assessment was prepared for the Project, which is included as DEIR Technical Appendix B, and concludes that the proposed Project would not exceed any of the SCAQMD localized significance thresholds (LSTs) during construction or operation; cause or substantially contribute to a CO "hot spot;" or expose sensitive receptors to cancer risks exceeding 10 in one million or non-cancer risks exceeding a Hazard Index of 1.0. As such, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

I-39 SWAPE states that Los Angeles County is the third worst county for ozone pollution in the nation, provides statistics regarding early-life exposure to inhaled pollutants, and states that the DEIR should study the Project's direct and cumulative air pollution effects on the health of children attending St. Mary's Catholic School, located 0.28-mile from the Project Site. As discussed in DEIR Section 5.4.3, *Air Quality*, a health risk assessment was prepared for the Project and was included as DEIR Technical Appendix B. As shown in Technical Appendix B, the Project's health risk to children is calculated to be far less than SCAQMD's significance threshold of 10 in 1 million. From Technical Appendix B, Figure 5 illustrates the cancer risk to the most affected age-group, infants (0-2 years). Technical Appendix Table 15 shows the cancer risk for the unborn child during the 3rd trimester, Table 16 shows the cancer risk to infants (0-2 years), Table 17 shows the cancer risk to children ages 2 to 16 years and Table 18 shows the cancer risk as that child becomes an adult (years 16-30). Based on ultra-conservative assumptions, the 30.25-year, cumulative carcinogenic health risk (3rd trimester [-0.25 to 0 years] + infant [0-2 years] + child [2-16 years] + adult [16-30 years]) to an individual born during the opening year of the Project, and located in the Project vicinity for the entire 30-year duration, is a maximum of 0.78 in one million at a receptor location placed at "bike trail_8," followed by 0.77 in one million at "receptor location 1" as shown in Table 19 . Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the cancer risk from diesel

emissions created by the proposed Project. Also, refer to Response I-40. The DEIR's significance conclusion is accurate and recirculation of a DEIR is not necessary.

I-40 SWAPE states that a revised EIR should be prepared to evaluate cumulative health risks from multiple proposed warehouses on the adjacent community including people of color and children. As a point of clarification, the Project will not operate as a warehouse. Also, there are no known warehouse projects proposed in areas adjacent to the Project site or the larger Whittier Boulevard Specific Plan Workplace District because distribution/storage is not a permitted primary use pursuant to the Specific Plan's zoning standards. As stated in DEIR Section 3.0, *Project Description*, the Project's proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space. The City has added a condition of approval to the Project specifying that distribution/storage shall only be ancillary to a permitted primary use and shall thus be limited to no more than 49% of the building's usable floor space.

In regard to cumulative health risk analysis and as discussed in DEIR Section 5.4.3, *Air Quality*, a health risk assessment was prepared for the Project that was included as DEIR Technical Appendix B. The DEIR concludes based on objective modeling conducted by air quality experts at Ganddini Group and reported in Technical Appendix B, that the Project would have a less than significant human health impact based on the significance criteria used by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the regulatory agency charged with bringing air quality levels in the South Coast Air Basin to acceptable levels. The SCAQMD published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*.[5] In this report the AQMD clearly states on page D-3:

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

[5] SCAQMD, 2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. August 2023. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf

Therefore, the DEIR's analysis relies on direction from the SCAQMD that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for Project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the South Coast Air Basin is in nonattainment, and, therefore, the Project would not be considered to have a significant, adverse air quality impact. The DEIR's significance conclusion is accurate and recirculation of a DEIR is not necessary.

I-41 SWAPE agrees with the DEIR's conclusion that the Project's GHG impacts would be significant, but disagrees that they are significant and unavoidable because the DEIR does not include mitigation measures. Mitigation Measures MM 4.3-1 though MM 4.3-10 have been added to the FEIR to reduce the Project's GHG emissions to the maximum feasible extent, although the impact would remain significant and unavoidable. Quantification of GHG reductions that would result from implementation of the added mitigation measures is not possible because some of the measures are human-behavior based with no enforcement mechanisms and thus cannot be quantified with certainty.

I-42 SWAPE recommends consideration of measures (identified below) found in the Department of Justice Warehouse Project Best Practices document. Responses to these recommendations are provided below. Like recommendations are grouped into single responses.

1. The commenter requests that off-road construction equipment be hybrid electric-diesel or zero-emission where feasible and that diesel-fueled equipment be CARB Tier 4 compliant or better. The commenter also suggests that the contractor keep a record of all equipment maintenance and data sheets, including design specifications and emission control tier classifications; and furnish such list to the lead agency or other regulators upon request. Pursuant to the commenter's request the following mitigation measures have been added to the Final EIR as follows. The mitigation measures further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

   MM 4.3-1 Construction contractors shall assure that: a) construction equipment greater than 150 horsepower achieves or is equivalent to or better than Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards, or Tier 3 standards if Tier 4 equipment is not available at the time of construction; and b) construction equipment over 50 horsepower is fitted with best available control technology (BACT) devises, if technically feasible and if the BACT devices can be reasonably acquired by the contractor. These requirements shall be specified in bid documents issued to prospective contractors. Prior to grading and building permit issuance, the construction contractor(s) shall submit an equipment list to the City of Whittier confirming that the equipment used is compliant. The contractor(s) also shall keep a copy of equipment list, with CARB tier levels noted, BACT devises noted, and any required CARB or SCAQMD operating permits required, on the construction site in a location available for the City or City designee for inspection upon request.

MM 4.3-6 Project construction contractors shall maintain records of all off-road diesel construction equipment associated with Project construction to document that each off-road diesel construction equipment used meets emission standards. Records shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Whittier staff or their designee.

2. The commenter requests prohibition of off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day. Mitigation measure MM 4.3-1 identified above will substantially reduce emissions of particulate matter (PM) and oxides of nitrogen (NO_X). Furthermore, as stated on DEIR pp. 3-8 and 3-9, construction equipment is expected to operate on the Project Site up to eight hours per day, and even through construction activities are permitted to occur between 7:00 a.m. to 6:00 p.m. on Mondays through Fridays, and 8:00 a.m. to 5:00 p.m. on Saturdays pursuant to the Whittier Municipal Code Section 8.32.040(L), as is typical to a construction site, construction equipment is not in continual use and some pieces of equipment are used only periodically throughout a typical day of construction. Also, most construction crews work from approximately 7:00 a.m. to 3:00 p.m. For these reasons, seven or eight hours of daily use per piece of equipment is a reasonable assumption. For these reasons, the City finds it unnecessary to add the requested mitigation measure.

3. The commenter requests use of non-diesel construction tools and equipment and designation of an area in the construction site where electric-powered construction vehicles and equipment can charge. Pursuant to the commenter's request the following mitigation measure has been added to the FEIR. The mitigation measure further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

MM 4.3-7 If electric or non-diesel off-road trucks and construction support equipment, including but not limited to hand tools, forklifts, aerial lifts, materials lifts, hoists, pressure washers, plate compactors, and air compressors are available in the construction contractor's equipment fleet and can fulfill the Project's construction requirements during the building construction, paving, and architectural coating phases of Project construction, such equipment shall be used during Project construction. This requirement shall be noted on plans submitted for grading and building permit issuance.

MM 4.3-8 Plans submitted for grading permit issuance and building permit issuance shall specify a designated area of the construction site where electric or non-diesel vehicles, equipment, and tools can be fueled or charged. The provision of temporary electric infrastructure for such purpose shall be approved by the utility provider, Southern California Edison (SCE). If SCE will not approve the installation of temporary power for this purpose, the establishment of a temporary electric charging area will not be required. If electric equipment will not be used on the construction site because the construction contractor(s) does not have such equipment in its fleet, the establishment of a temporary electric charging area also will not be required. If electric powered equipment is in the contractor(s) equipment fleet, and SCE

approval is secured, the temporary charging location is required to be established upon issuance of grading permits and building permits.

4. The commenter requests mitigation to limit the amount of daily grading disturbance area, but does not provide an exact quantity. The construction analysis included conservative assumptions on the amount of acres that could be actively graded per day. Additionally, limiting the amount of grading per day will not change the overall amount of grading required for the Project, which would result in the same overall impact. Therefore, the DEIR made reasonable assumptions based on equipment and schedule and disclosed the maximum emissions per day, therefore, no further mitigation is required.

5. The commenter requests mitigation to prohibit grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area. It should be noted that pursuant to EPA documentation,6 an AQI of over 100 is generally correlated when the ambient air quality standards are exceeded. Further, AQI is monitored at a regional level and not necessarily representative of local conditions that would occur adjacent to the Project site – which is important for determining local construction impacts. As noted in DEIR Table 5-4, *Local Construction Emissions at the Nearest Sensitive Receptors*, the Project's construction would not exceed any of the applicable ambient air quality standards during construction activity as evidenced by the modeling conducted in support of the LST analysis. Because the Project would not result in a significant health risk to sensitive receptors during construction, there is no need to limit grading activities. Thus, the City determines that additional mitigation is not warranted.

6. The commenter requests mitigation to forbid idling of heavy equipment for more than three minutes and to install signs to this effect. CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment or potential additional pollutants generated by starting equipment as opposed to idling. Best Available Control Measure (BACMs) inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints. However, pursuant to the commenter's request, the following mitigation measure has been added to the FEIR. The mitigation measure further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

   MM 4.3-9 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report

[6] https://www.airnow.gov/sites/default/files/2020-05/aqi-technical-assistance-document-sept2018.pdf

violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.

7. The commenter requests the requirement of on-site inspections to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts. Pursuant to the commenter's request the following mitigation measure has been added to the FEIR. The mitigation measure further supports the conclusions in the DEIR and is not evidence of a new or greater impact not previously disclosed.

   MM 4.3-10 During construction activities, the City shall conduct periodic inspections to verify compliance with construction-related mitigation measures pursuant to the Mitigation Monitoring and Reporting Program.

8. The commenter suggests requiring that all heavy-duty vehicles engaged in drayage to or from the project site to be zero emission beginning in 2030. As a point of clarification, the Project will not operate as a warehouse and as such it is highly unlikely that any drayage activities will be part of the Project's operation. As stated in DEIR Section 3.0, *Project Description*, the Project's proposed building is designed to accommodate uses such as manufacturing, assembly, R&D, light industrial, and related uses, with ancillary distribution and storage space. Nonetheless, and in response to the comment and suggestion, at present, requiring zero-emission vehicles is economically and technologically infeasible; also, such vehicles are not available on a large enough scale to be relied upon. In a report titled "Transitioning to Zero-Emission Heavy-Duty Freight Vehicles," the International Council on Clean Transportation (ICCT) provides an overview of advancing technologies (ICCT, September 2017).[7] The ICCT reports that although the technology is advancing and although at some point in the distant future non-diesel technology will likely be used in mass to power freight movement, "zero-emission vehicle technologies do present considerable challenges. They have a combination of near- and long-term barriers, issues, and questions that will have to be addressed before they can become widespread replacements for conventional trucks and tractor-trailers that are typically diesel fueled" (ICCT, p. 31). "Tesla's announced battery electric semi-tractor prototype is the only battery electric project we found in our [world-wide] assessment targeting long-haul heavy-duty applications" (ICCT, p. 31). Imposing extensive requirements on the proposed Project related to emerging technology, when the various types of technological advancements and their timeframes for common availability are not known with any certainty, is not a feasible mitigation measure.

   An EIR must describe feasible measures that could minimize the project's significant adverse impacts. 14 Cal Code Regs §15126.4(a)(1). An EIR may decline to propose a mitigation measure that would not effectively address a significant impact. An EIR also need not identify and discuss mitigation measures that are infeasible. Nor must an EIR analyze in detail mitigation measures it concludes are infeasible.

[7] https://www.theicct.org/sites/default/files/publications/Zero-emission-freight-trucks_ICCT-white-paper_26092017_vF.pdf

9. The commenter requests mitigation to require tenants to use zero-emission light- and medium-duty vehicles and equipment as part of business operations. Refer to Response I-42.8 regarding the feasibility of using zero-emission vehicles. However, the following mitigation measures have been added to the FEIR. The mitigation measures further supports the conclusions in the Draft EIR and is not evidence of a new or greater impact not previously disclosed.

MM 4.3-2 The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) are recommended to be powered by electric or other zero-emission technology. An appropriate number of charging stations for electric equipment shall be accommodated on the site, as determined by the City of Whittier through the building permit plan check process.

MM 4.3-3: In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program. The City shall be provided with a copy of the transmitted information, for verification, as a condition of building occupancy permits.

MM 4.3-4: The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed:

a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks.

10. The commenter requests installation of solar photovoltaic systems of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers. In accordance with CALGreen, the proposed building's roof will be solar-ready. The extent of solar panel installation would be subject to the electrical power needs of the building tenant. As such, a mitigation measure has not been added.

11. The commenter requests that the Project construct zero-emission truck charging/fueling stations proportional to the number of dock doors at the project. As stated in Mitigation Measure MM 4.3-4, the building's electrical room shall be sufficiently sized to hold additional panels that may be needed to supply power for the future installation of electric vehicle (EV) truck charging stations on the site. Conduit will be installed from the electrical room to tractor trailer parking spaces in logical location(s) on the site determined by the Project Applicant during construction document plan check, for the purpose of accommodating the future installation of EV truck charging stations at such time this technology becomes commercially available and the building is being served by trucks with electric-powered engines. Requiring zero-emission vehicles is currently economically and technologically infeasible; also, such vehicles are not available on a large enough scale to be relied upon. Therefore, the current technology required for EV truck charging stations is unknown and technologically infeasible. Thus, the City determines that additional mitigation is not warranted.

12. The commenter suggests that unless the Project prohibits refrigerated warehouse uses, it shall construct electric plugs for electric transport refrigeration units at every dock door and require truck operators with transport refrigeration units to use the electric plugs when at loading docks. The Project applicant does not propose refrigerated storage space. To assure that none of the building's storage space will be refrigerated, the following mitigation measure has been added to the FEIR:

    MM 4.3-5: Prior to the issuance of a shell building permit and tenant improvement building permits, the City shall verify that none of the building's storage space will be refrigerated.

13. The commenter requests mitigation to oversize electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability. As stated in Mitigation Measure MM 4.3-4, the building's electrical room shall be oversized to hold additional panels that may be needed in the future to supply power to electric vehicle (EV) truck charging stations. Thus, the City determines that additional mitigation is not warranted.

14. The commenter requests the Project construct and maintain electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance). The Project would comply with the 2022 California Green Building Standards Code (CALGreen). CALGreen Section 5.106.5.3.1 requires the Project to provide 20% of the provided parking stalls as EV ready with conduits and electrical ready panels; and, of the 20%, 25% will need to be EV stalls with the installed chargers. The EV stalls may be provided with any combination of Level 2 and Direct Current Fast Charging, except that at least one Level 2 electric vehicle supply equipment shall be provided (CALGreen Section 5.106.5.3.2).

Thus, the Project would meet the commenter's request and the City determines that additional mitigation is not warranted.

15. The commenter requests the Project run conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations. The Project would meet this requirement since it will be required to meet CALGreen, which requires the Project to provide 20% of the provided parking stalls as EV ready with conduits and electrical ready panels. Refer to response to Comment 14 above. Thus, the City determines that additional mitigation is not warranted.

16. The commenter requests the installation and maintenance, at the manufacturer's recommended maintenance intervals, of air filtration systems at sensitive receptors within a certain radius of facility for the life of the project. As discussed in Subsection 5.4.3, *Air Quality*, of the DEIR, and concluded in Table 5-4, *Local Construction Emissions at the Nearest Sensitive Receptor*, construction of the Project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations (refer to DEIR pp. 5-16 and -17). Similarly, Table 5-5, *Local Operational Emissions at the Nearest Sensitive Receptors*, concluded that operational emissions would not exceed the SCAQMD's localized significant thresholds at the maximally impacted receptor location. (refer to DEIR pp. 5-17). Thus, the City determines that additional mitigation is not warranted.

17. The commenter requests the installation and maintenance, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the Project, and making the resulting data publicly available in real time. As stated above in response to Comment I-42.16, the Project would not result in significant air quality related health risk impacts during construction or operation, therefore additional mitigation is not warranted.

18. The commenter requests mitigation to require all stand-by emergency generators to be powered by a non-diesel fuel. Emergency generators would only be used in emergency power failure or for routine testing and maintenance. Such intermittent use would not a substantial amount of emissions, since by the very nature of the activity, it would be short-term, intermittent, and infrequent. Requiring that emergency generators to be powered by non-diesel fuel would not result in a significant reduction in air quality emission impacts. Thus, the City determines that additional mitigation is not warranted.

19. The commenter requests facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks. Refer to Response I-42.6 for a detailed discussion on idling of trucks Mitigation Measure 4.3-9 regarding the posting of signs. Thus, the City determines that additional mitigation is not warranted.

20. The commenter requests mitigation to establish and promote a rideshare program that discourages single occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking. The commenter also requests that the Project meet CALGreen Tier 2 green building standards, including all provisions related to

designated parking for clean air vehicles, electric vehicle charging, and bicycle parking. Tier 2 green building standards are voluntary. The Project would meet CALGreen Tier 1 green building standards. Additionally, the Project would be required to be consistent with the provisions of interior and exterior bicycle storage as a sustainable design strategy consistent with CALGreen. Furthermore, the Project would be required to provide 20% of the provided parking stalls as EV ready with conduits and electrical ready panels; and, of the 20%, 25% will need to be EV stalls with the installed chargers. The Project would also providing electrical conduits for future EV truck charging stations (refer to Mitigation Measure MM 4.3-4) and as a design feature is installing electric charging capabilities at on-site bicycle storage areas to promote the use of electric bikes. Based on the preceding, the Project adequately provides designated parking for clean air vehicles, electric vehicle charging, and bicycle parking. Thus, the City determines that additional mitigation is not warranted.

21. The commenter requests the Project be designed to LEED green building certification standards. The Project would be constructed to Title 24 Part 6 and CALGreen Building Code Tier 1 standards, which approximates basic LEED certification. Thus, the City determines that additional mitigation is not warranted.

22. The commenter requests mitigation requiring meal options onsite or shuttles between the facility and nearby meal destinations. No evidence is provided to show that implementing this recommendation would measurably reduce air pollutant or GHG emissions. Since a majority of the Project's operational mobile source emissions would be due to trucks and not passenger cars, the recommendation would not result in a measurable reduction of emissions and would not meaningfully reduce Project impacts. Thus, the City determines that additional mitigation is not warranted.

23. The commenter requests mitigation to post signs at every truck exit driveway providing directional information to the truck route. The City finds this recommendation unnecessary because trucks exiting the site would only be able to turn in one direction, making a right turn of the Project site's southern driveway. Thus, the City determines that additional mitigation is not warranted.

24. The commenter requests that the Project improve and maintain vegetation and tree canopy for residents in and around the area. Improving and maintaining vegetation and the tree canopy for residents in and around the Project site would not have any effect on reducing the Project's air quality and GHG emissions. Regardless, the Project would provide extensive landscape on the Project site. DEIR Figure 3-7, *Landscape Conceptual Plan*, (DEIR p. 3-15), depicts the Project's proposed landscape plan for the site. Therefore, the City determines that additional mitigation is not warranted.

25. The commenter requests that the building tenant (1) train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses; and (2) require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request. Compliance with CARB regulations is mandatory and compliance with

regulatory requirements is not necessary to repeat as mitigation. Thus, the City determines that additional mitigation is not warranted.

26. The commenter requests that the Project Applicant require tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers. Refer to Mitigation Measure MM 4.3-3 added to the FEIR, which will encourage SmartWay participation. The City has no jurisdictional authority to require enrollment or participation in this voluntary federal program. Thus, the City determines that additional mitigation is not warranted.

I-43 SWAPE states that the Project should not be approved until the feasibility of incorporating on-site renewable energy is production is considered. SWAPE's opinion is noted. The proposed building's roof will be solar-ready at shell building permit and the amount of rooftop solar to be installed will be determined during the tenant improvement building permit process depending on tenant demand.

I-44 SWAPE concludes with a disclaimer that they have received limited discovery regarding the Project. The concluding comment is noted. No further response is required.

F.3 ADDITIONS, CORRECTIONS, AND REVISIONS TO THE DEIR

Substantive changes made to the text, tables, and/or exhibits of the DEIR in response to public comments are itemized in Table F-2, *Errata Table of Additions, Corrections, and/or Revisions to the DEIR*. Additions are shown in Table F-2 as underline text and deletions shown as ~~stricken~~ text. Minor changes to the DEIR (e.g., corrections of non-substantive typographical errors) are not listed in Table F-2. No corrections or additions made to the DEIR are considered substantial new information requiring recirculation or additional environmental review under CEQA Guidelines Section 15088.5.

Table F-2 Errata Table of Additions, Corrections, and/or Revisions to the DEIR

Page(s)	Section(s)	Additions, Corrections, and/or Revisions to the DEIR
S-14 to -18	S.0, Executive Summary	Mitigation measures MM 4.3-1 to MM 4.3-10 have been added to Table S-1, Mitigation Monitoring and Reporting Program.
3-8	3.0, Project Description	In response to a comment made by Blum, Collins, and Ho, the earthwork quantities have been added to FEIR Subsection 3.4.2, Construction Activities Schedule and Equipment Fleet: The Project would result in approximately 26,761 cubic yards of cut and fill, Earthwork activities are expected to balance and no import or export of soil materials would be required.
4.3-18, -19	4.3, Greenhouse Gas Emissions	In response to a comment made by Blum, Collins, and Ho, the FEIR has been updated to reference the 2020-2045 RTP/SCS. As demonstrated by the following analysis, the Project would not conflict with applicable plans, policies, and/or regulations adopted with the intent to reduce GHG emissions, including AB 32 and SB 32, SCAG's *2020-2045* ~~*2016-2040*~~ *RTP/SCS*, and the Title 24 CBSC, which are particularly applicable to the Project. The *2020-2045* ~~*2016-2040*~~ *RTP/SCS* was prepared to ensure that the SCAG region attains the per capita vehicle miles targets for passenger vehicles identified by CARB (and, thus, meeting associated GHG emissions targets), as required by Senate Bill 375. As explained in EIR Section 5.4, *Effects Found not to be Significant During the Scoping Process*, the Project would not conflict with applicable measures of the *2020-2045* ~~*2016-2040*~~ *RTP/SCS* and, therefore, would not interfere with the region's ability to minimize GHG emissions from transportation sources.
4.3-20 to -22	4.3, Greenhouse Gas Emissions	In response to comments made by Advocates for the Environment and Blum, Collins, and Ho, the following mitigation measures have been added to the FEIR. The following mitigation measures have been identified that are feasible for the City to enforce. ~~No other mitigation measures are available that are feasible~~

Table F-2 Errata Table of Additions, Corrections, and/or Revisions to the DEIR

Page(s)	Section(s)	Additions, Corrections, and/or Revisions to the DEIR
		~~for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact.~~ MM 4.3-1 Construction contractors shall assure that: a) construction equipment greater than 150 horsepower achieves or is equivalent to or better than Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards, or Tier 3 standards if Tier 4 equipment is not available at the time of construction; and b) construction equipment over 50 horsepower is fitted with best available control technology (BACT) devises, if technically feasible and if the BACT devices can be reasonably acquired by the contractor. These requirements shall be specified in bid documents issued to prospective contractors. Prior to grading and building permit issuance, the construction contractor(s) shall submit an equipment list to the City of Whittier confirming that the equipment used is compliant. The contractor(s) also shall keep a copy of equipment list, with CARB tier levels noted, BACT devises noted, and any required CARB or SCAQMD operating permits required, on the construction site in a location available for the City or City designee for inspection upon request. MM 4.3-2 The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) are recommended to be powered by electric or other zero-emission technology. An appropriate number of charging stations for electric equipment shall be accommodated on the site, as determined by the City of Whittier through the building permit plan check process. MM 4.3-3: In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program. The City shall be provided with a copy of the transmitted information, for verification, as a condition of building occupancy permits.

Table F-2 Errata Table of Additions, Corrections, and/or Revisions to the DEIR

Page(s)	Section(s)	Additions, Corrections, and/or Revisions to the DEIR
		MM 4.3-4: The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed: a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks. MM 4.3-5: Prior to the issuance of a shell building permit and tenant improvement building permits, the City shall verify that none of the building's storage space will be refrigerated. MM 4.3-6 Project construction contractors shall maintain records of all off-road diesel construction equipment associated with Project construction to document that each off-road diesel construction equipment used meets emission standards. Records shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Whittier staff or their designee. MM 4.3-7 If electric or non-diesel off-road trucks and construction support equipment, including but not limited to hand tools, forklifts, aerial lifts, materials lifts, hoists, pressure washers, plate compactors, and air compressors are available in the construction contractor's equipment fleet and can fulfill the Project's construction requirements during the building construction, paving, and architectural coating phases of Project construction, such equipment shall be used during Project construction. This requirement shall be noted on plans submitted for grading and building permit issuance. MM 4.3-8 Plans submitted for grading permit issuance and building permit issuance shall specify a designated area of the construction site where electric or non-diesel vehicles, equipment, and tools can be fueled or charged. The provision of temporary electric

Table F-2 Errata Table of Additions, Corrections, and/or Revisions to the DEIR

Page(s)	Section(s)	Additions, Corrections, and/or Revisions to the DEIR
		infrastructure for such purpose shall be approved by the utility provider, Southern California Edison (SCE). If SCE will not approve the installation of temporary power for this purpose, the establishment of a temporary electric charging area will not be required. If electric equipment will not be used on the construction site because the construction contractor(s) does not have such equipment in its fleet, the establishment of a temporary electric charging area also will not be required. If electric powered equipment is in the contractor(s) equipment fleet, and SCE approval is secured, the temporary charging location is required to be established upon issuance of grading permits and building permits. MM 4.3-9 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place. MM 4.3-10 During construction activities, the City shall conduct periodic inspections to verify compliance with construction-related mitigation measures pursuant to the Mitigation Monitoring and Reporting Program. Accordingly, even with implementation of MM 4.3-1 though MM 4.3-10, the City finds that the Project's GHG emissions are a significant and unavoidable cumulatively-considerable impact for which no feasible mitigation is available.
5-2, 5-3	5.2, Significant Irreversible Environmental Impacts which would be Involved in the Proposed Project should it be Implemented	A correction was made as follows pursuant to DTSC requirements: . . . existing hazardous materials would be ~~removed from~~ remediated on the property, contaminated soils would be ~~removed to a depth of 10 feet and properly disposed of off site~~ addressed to the satisfaction of the California Department of Toxic Substances Control (DTSC), and soil vapor conditions would be remediated to be in compliance with regulatory limits. In response to a comment made by Blum, Collins, and Ho, additional information was added to Subsections 5.2.

Table F-2 Errata Table of Additions, Corrections, and/or Revisions to the DEIR

Page(s)	Section(s)	Additions, Corrections, and/or Revisions to the DEIR
		The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years with a similar use in compliance with the site's existing Innovation (INN) General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation. The Project Site has 213,430 s.f. of existing building space and is proposed to be redeveloped with 295,959 s.f. of building space. The addition of 82,529 s.f. of building space, consistent with the Site's General Plan designation and zoning classification, is consistent with the City's planned growth. As stated previously, the Project would result in a significant direct and cumulatively-considerable impact related to the demolition of a building that as associative value to post WWII manufacturing and distribution activities. The loss of the Project Site's existing building is considered an irreversible environmental impact determined to be significant by this EIR. Also, the Project would result in a significant cumulatively considerable greenhouse gas (GHG) emission impact. The emission of GHGs contributes to global climate change and the Project's emissions would contribute to the exposure of future generations climate shifts, which contribute to environmental impacts.
5-3	5.3, Growth Inducing Impacts of the Proposed Project	In response to a comment made by Blum, Collins, and Ho, additional information was added to Subsection 5.3. The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years with a similar use in compliance with the site's existing Innovation (INN) General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation. The Project Site has 213,430 s.f. of existing building space and is proposed to be redeveloped with a 295,959 s.f. building. The addition of 82,529 s.f. of building space, consistent with the Site's General Plan designation and zoning classification, is consistent with the City's planned growth. The addition of 82,529 s.f. of non-residential building space on a site planned and zoned for the additional space represents less than one-one-hundredth of one percent (0.008 percent) of the City's total non-residential building space capacity and does not represent significant direct or cumulatively considerable growth that would induce growth on other properties.
5-14, -17	5.0, Other CEQA Considerations	Table 5-3 and Table 5-5 were updated to correct numerical CalEEMod modeling data outputs, with no changes to the less-than significant impact conclusions.
Technical Appendix B	Air Quality, Greenhouse Gas, Health Risk Assessment and Energy Impact Analysis	In response to comments by Blum, Collins, and Ho, corrections were made to Tables 10 and 11 to reflect CalEEMod modeling data outputs.

F.4 NO RECIRCULATION OF DEIR REQUIRED

CEQA Guidelines Section 15088.5 describes the conditions under which a DEIR that was circulated for public review is required to be re-circulated for additional public review and comment. CEQA Guidelines Section 15088.5 states that new information added to a DEIR is not significant unless the DEIR is changed in

a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
3. A feasible project alternative or mitigation measure considerably different from the others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; and/or
4. The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Based on the comment letters received by the City of Whittier and the responses thereto (presented in Subsection F.2, above) and the minor revisions made to the DEIR (presented in Subsection F.3, above), there were no public comments or changes to the text or analysis presented in the DEIR that resulted in the identification of any new significant environmental effect or a substantial increase in the severity of an environmental effects that were disclosed in the DEIR. The minor revisions to the DEIR merely clarified and amplified information that was already disclosed in the DEIR. Additionally, the DEIR was fundamentally and basically adequate, and all conclusions within the DEIR were supported by evidence provided within the DEIR or the administrative record for the proposed Project. Furthermore, public comment letters on the DEIR did not identify any alternatives to the proposed Project considerably different from those analyzed in the DEIR that would substantially lessen the significant environmental impacts of the proposed Project while still attaining the Project's basic objectives. Based on the foregoing, recirculation of the DEIR is not warranted according to the guidance set forth in Section 15088.5 of the CEQA Guidelines.

Changed Pages of the Draft EIR

APPENDICES (BOUND SEPARATELY)

A: Initial Study, Notice of Preparation (NOP), and Written Comments on the NOP
B: Air Quality, Greenhouse Gas, Health Risk Assessment and Energy Impact Analysis
C1: Cultural Resources Study
C2: Cultural Resources Records Search (Confidential and not available for public review except by qualified professionals)
C3: Historical Documentation Report
D: Geotechnical Investigation
E1: Phase I Environmental Site Assessment
E2: Soil and Soil Vapor Investigation
E3: Soil Management Plan
F1: Hydrology Report
F2: Low Impact Development Report
G: Noise Impact Analysis
H: Sewer Study
I1: Traffic Study
I2: Trip Generation Update Memo
J: Proposed Grading Plan
K: Truck Turn Exhibits

IMPACT SUMMARY	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	assume that the truck fleet that will access the Project Site will be diesel-powered. Mobile source GHG emissions are regulated by State and federal fuel standards and tailpipe emissions standards and are outside of the control and authority of the City, the Project Applicant, and future Project occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City) in order to be implemented. The following mitigation measures have been identified that are feasible for the City to enforce. ~~No other mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact.~~ **MM 4.3-1**:Construction contractors shall assure that: a) construction equipment greater than 150 horsepower achieves or is equivalent to or better than Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards, or Tier 3 standards if Tier 4 equipment is not available at the time of construction; and b) construction equipment over 50 horsepower is fitted with best available control technology (BACT) devises, if technically feasible and if the BACT devices can be reasonably acquired by the contractor. These requirements shall be specified in bid documents issued to prospective contractors. Prior to grading and building permit issuance, the construction contractor(s) shall submit an equipment list to the City of Whittier confirming that the equipment used is compliant. The contractor(s) also shall keep a copy of equipment list, with CARB tier levels noted, BACT devises noted, and any required CARB or SCAQMD operating permits required, on the construction site in				

IMPACT SUMMARY	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	a location available for the City or City designee for inspection upon request. **MM 4.3-2**:The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) shall be powered by electric or other zero-emission technology, and an appropriate number of charging stations for the on-site equipment shall be accommodated on the site. **MM 4.3-3**:In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program. **MM 4.3-4**:The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed:				

IMPACT SUMMARY	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks. **MM 4.3-5**:Prior to the issuance of a shell building permit and tenant improvement building permits, the City shall verify that none of the building's storage space will be refrigerated. **MM 4.3-6**:Project construction contractors shall maintain records of all off-road diesel construction equipment associated with Project construction to document that each off-road diesel construction equipment used meets emission standards. Records shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Whittier staff or their designee. **MM 4.3-7**:If electric or non-diesel off-road trucks and construction support equipment, including but not limited to hand tools, forklifts, aerial lifts, materials lifts, hoists, pressure washers, plate compactors, and air compressors are available in the construction contractor's equipment fleet and can fulfill the Project's construction requirements during the				

IMPACT SUMMARY	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	building construction, paving, and architectural coating phases of Project construction, such equipment shall be used during Project construction. This requirement shall be noted on plans submitted for building permit issuance. **MM 4.3-8**: Plans submitted for grading permit issuance and building permit issuance shall specify a designated area of the construction site where electric or non-diesel vehicles, equipment, and tools can be fueled or charged. The provision of temporary electric infrastructure for such purpose shall be approved by the utility provider, Southern California Edison (SCE). If SCE will not approve the installation of temporary power for this purpose, the establishment of a temporary electric charging area will not be required. If electric equipment will not be used on the construction site because the construction contractor(s) does not have such equipment in its fleet, the establishment of a temporary electric charging area also will not be required. If electric powered equipment is in the contractor(s) equipment fleet, and SCE approval is secured, the temporary charging location is required to be established upon issuance of grading permits and building permits. **MM 4.3-9**:Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations.				

IMPACT SUMMARY	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place. **MM 4.3-10**: During construction activities, the City shall conduct periodic inspections to verify compliance with construction-related mitigation measures pursuant to the Mitigation Monitoring and Reporting Program.				
Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.4 Hazards and Hazardous Materials					
Threshold a and b: Significant Direct Impact. Based on the results of the Project's Phase I ESA and Soil/Vapor Investigation, the Project Site is associated with RECs. As such, the Project has the potential to create a significant hazard to the public or the environment during demolition and construction activities due to existing site contamination and due to the likely presence of asbestos-containing materials within the existing buildings on-site.	**MM 4.4-1**: As conditions of the Project's demolition permit and grading permit, the City of Whittier shall require compliance with the Project's Soil Management Plan (*Technical Appendix E2* to this EIR) prepared by HMC, titled "Soil Management Plan Former Leggett & Platt Facility, 12352 Whitter Boulevard, Whitter, California 90602," and dated January 13, 2023, or the most recent version thereof published at the time of permit issuance and approved by the Los Angeles Regional Water Quality Control Board (LARWQCB). If there are any discrepancies among mitigation measures provided in this EIR and the Soil Management Plan, the requirements of the Soil Management Plan approved by the LARWQCB shall prevail. As part of the grading efforts, South Coast Air Quality Management District (SCAQMD) Rules 1166 (VOCs) and 1466 (Metals) also shall apply.	Construction Contractors	City of Whittier Community Development Department Building and Safety Division Public Works Department	Prior to issuance of a demolition and grading permit	Less-than-Significant Impact with Mitigation Incorporated

3.4.2 Construction Activities Schedule and Equipment Fleet

The Project Applicant anticipates that the construction process will span a length of approximately 12.5 months. Demolition of the existing on-site structures and parking areas would occur first, followed by site preparation, then mass-grading, fine grading, and installation of underground infrastructure and retaining walls. As part of the demolition and site preparation process, asbestos-containing materials present in the existing buildings would be properly handled and disposed of in accordance with applicable regulatory requirements.

Because soils on the Project Site contain volatile organic compounds (VOCs) and Diesel Range Total Petroleum Hydrocarbons (TPH-d) above regulatory limits from an off-site release that occurred in the 1980's, shallow soils would be excavated, recompacted, and handled following a Soil Management Plan contained as *Technical Appendix E3* to this EIR, which was reviewed and approved by the LARWQCB. A vapor barrier would be installed beneath the proposed building slab to attenuate the presence of volatile organic compounds (VOCs) within soil gas as required by South Coast Air Quality Management District (SCAQMD) Rule 1166. The Project would result in approximately 26,761 cubic yards of cut and fill, Earthwork activities are expected to balance and no import or export of soil materials would be required.

Next, the building's concrete foundation and walls would be poured and formed, the concrete walls would be tilted up by a crane, and the proposed building shell would be erected, roofed, connected to the underground utility system, and painted. The concrete parking lots and drive aisles also would be poured. Lastly, landscaping, fencing, screen walls, lighting, signage, and other site improvements would be installed. The estimated Project construction schedule, organized by construction stage, is summarized in Table 3-2, *Estimated Construction Schedule.* After the building shell is completed and an occupant is identified, interior tenant improvements would occur.

Table 3-2 Estimated Construction Schedule

Phase Name	Work Days
Demolition	52
Site Preparation	9
Grading	42
Construction	153
Paving	42
Architectural Coatings	94

(Ganddini, 2023a, Table 26)

The construction equipment fleet that the Project Applicant estimates will be used for Project construction is summarized in Table 3-3, *Construction Equipment Fleet*. Construction workers would travel to the Project Site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. Construction equipment is expected to operate on the Project Site up to eight hours per day, six days per week.

Table 4.3-2 Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Maximum Annual Operations	54.50	5,356.00	5,410.00	5.78	0.38	5,685.00
Construction[1]	0.00	24.40	25.40	0.00	0.00	25.83
Total Emissions	54.50	5,381.40	5,435.40	5.78	0.38	**5,710.83**

[1] Construction GHG emissions CO2e based on a 30-year amortization rate.
Source: (Ganddini, 2023a, Table 21)

Threshold b: ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

As demonstrated by the following analysis, the Project would not conflict with applicable plans, policies, and/or regulations adopted with the intent to reduce GHG emissions, including AB 32 and SB 32, SCAG's *2020-2045* ~~*2016-2040*~~ *RTP/SCS*, and the Title 24 CBSC, which are particularly applicable to the Project.

In April 2015, Governor signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, Governor Brown signed the SB 32, which formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets.

In November 2017, CARB release the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals, and includes a description of a suite of specific actions to meet the State's 2030 GHG limit. The actions identified in the 2017 Scoping Plan to reduce overall GHG emissions in California identify new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets. These strategies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources. The Project is consistent with the applicable strategies. (Ganddini, 2023a, pp. 83-86)

In November 2022, CARB released the Final 2022 Scoping Plan Update, which identifies the State's progress towards the statutory 2030 target, while providing a path towards carbon neutrality and reduced greenhouse gases emissions by 85% below 1990 levels by 2045. Recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030. The Project would not conflict with any of the 2022 Scoping Plan elements as any regulations adopted would apply directly or indirectly to the Project.

Rendering a significance determination for year 2050 GHG emissions relative to EO B-30-15 would be speculative because EO B-30-15 establishes a goal three decades into the future; no agency with GHG subject matter expertise has adopted regulations to achieve these statewide goals at the project-level; and, available analytical models cannot presently quantify all project-related emissions in those future years. Further, due to the technological shifts anticipated and the unknown parameters of the regulatory framework in 2050, available

GHG models and the corresponding technical analyses are subject to limitations for purposes of quantitatively estimating the Project's emissions in 2050.

The *2020-2045* ~~*2016-2040*~~ *RTP/SCS* was prepared to ensure that the SCAG region attains the per capita vehicle miles targets for passenger vehicles identified by CARB (and, thus, meeting associated GHG emissions targets), as required by Senate Bill 375. As explained in EIR Section 5.4, *Effects Found not to be Significant During the Scoping Process*, the Project would not conflict with applicable measures of the *2020-2045* ~~*2016-2040*~~ *RTP/SCS* and, therefore, would not interfere with the region's ability to minimize GHG emissions from transportation sources.

The Project would provide for the construction and operation of one building that would include contemporary, energy-efficient/energy-conserving design features and operational procedures. The CBSC includes the California Energy Code, or Title 24, Part 6 of the California Code of Regulations, also titled The Energy Efficiency Standards for Residential and Nonresidential Buildings. The California Energy Code was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated approximately every three years to improve energy efficiency by allowing and incorporating new energy efficiency technologies and methods. The Project would be required to comply with all applicable provisions of the CBSC. As such, the Project's energy demands would be minimized through design features and operational programs that, in aggregate, would ensure that Project energy efficiencies would comply with – or exceed – incumbent CBSC energy efficiency requirements, thereby minimizing GHG emissions produced from energy consumption.

As described on the preceding pages, implementation of the Project would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under EO S-3-05, EO B-30-15, or SB 32. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less than significant impact.

4.3.5 Cumulative Impact Analysis

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines Section 15130[f]). Accordingly, the analysis provided in Subsection 4.3.5 reflects a cumulative impact analysis of the effects related to the Project's GHG emissions, which concludes that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations but would generate cumulatively-considerable GHG emissions that may have a significant impact on the environment because the Project would exceed the SCAQMD's GHG emissions threshold of 3,000 $MTCO_2e$ per year.

4.3.6 Significance of Impacts Before Mitigation

Threshold a: Cumulatively Considerable Impact. The Project would exceed the SCAQMD significance threshold of 3,000 MTCO2e per year. As such, the Project would generate substantial, cumulatively-considerable GHG emissions that may have a significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.

4.3.7 Mitigation

The Project would be required to implement design measures to maximize energy efficiency and reduce GHG emissions as required by State law (for example, the use of energy efficient appliances as required by the CBSC) and by local regulations. Although mandatory compliance with applicable State and local regulations would reduce Project-related GHG emissions, these requirements would not substantially reduce Project mobile source GHG emissions (i.e., emissions from construction equipment, passenger cars, and heavy-duty trucks). Compliance with Title 24 of the California Green Building Code already serves to reduce area-source GHG emissions to the maximum feasible extent. As advancements in vehicle technology progress, it is expected that a higher percentage of vehicles including trucks will be electric-powered than occurs today. However, until vehicle technology advances and electric trucks are more commonly commercially available with enough power to haul heavy loads over long distances, it is reasonable to assume that the truck fleet that will access the Project Site will be primarily diesel-powered. Mobile source GHG emissions are regulated by State and federal fuel standards and tailpipe emissions standards and are outside of the control and authority of the City, the Project Applicant, and future Project occupants. CEQA Guidelines Section 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency (i.e., City) in order to be implemented. The following mitigation measures have been identified that are feasible for the City to enforce. ~~No other mitigation measures are available that are feasible for the City to enforce, beyond those already required by regulations, that have a proportional nexus to the Project's level of impact~~.

MM 4.3-1 Construction contractors shall assure that: a) construction equipment greater than 150 horsepower achieves or is equivalent to or better than Environmental Protection Agency (EPA)/California Air Resources Board (CARB) Tier 4 emissions standards, or Tier 3 standards if Tier 4 equipment is not available at the time of construction; and b) construction equipment over 50 horsepower is fitted with best available control technology (BACT) devises, if technically feasible and if the BACT devices can be reasonably acquired by the contractor. These requirements shall be specified in bid documents issued to prospective contractors. Prior to grading and building permit issuance, the construction contractor(s) shall submit an equipment list to the City of Whittier confirming that the equipment used is compliant. The contractor(s) also shall keep a copy of equipment list, with CARB tier levels noted, BACT devises noted, and any required CARB or SCAQMD operating permits required, on the construction site in a location available for the City or City designee for inspection upon request.

MM 4.3-2 The Project site owner and all successors in interest shall stipulate in building sale and lease agreements that all indoor and outdoor forklifts and all outdoor cargo-handling equipment (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) shall be powered by electric or other zero-emission technology, and an appropriate number of charging stations for the on-site equipment shall be accommodated on the site.

MM 4.3-3 In order to promote alternative fuels, and help support lower air pollutants associated with truck fleets, the developer/successor-in-interest shall provide building occupants with information related to SCAQMD's Carl Moyer Program, or other such programs that promote truck retrofits or "clean" vehicles and information including, but not limited to, the health effect of diesel particulates and benefits of reduced idling time. The building tenant(s) shall be notified about 1) grant programs for diesel-fueled vehicle engine retrofit and/or replacement; 2) access to alternative fueling and charging stations proximate to the site that supply electric charging infrastructure or compressed natural gas; and 3) the United States Environmental Protection Agency's SmartWay program.

MM 4.3-4 The minimum number of automobile electric vehicle (EV) charging stations required by the California Code of Regulations Title 24 shall be provided. In addition, and to facilitate the possible future installation of infrastructure that would charge the batteries that power the motors of electric-powered trucks, the following shall be installed:

a. At shell building permit, an oversized electrical room(s) and/or exterior area(s) of the site shall be designated where future electrical panels would be located for the purpose of supplying power to on-site charging facilities for electric powered trucks. Conduit shall be installed from this designated area where the panel would be located to the on-site location where the charging facilities would be located where electric-powered trucks would park and connect to charging facilities to charge the batteries that power the motors of the electric-powered trucks.

MM 4.3-5 Prior to the issuance of a shell building permit and tenant improvement building permits, the City shall verify that none of the building's storage space will be refrigerated.

MM 4.3-6 Project construction contractors shall maintain records of all off-road diesel construction equipment associated with Project construction to document that each off-road diesel construction equipment used meets emission standards. Records shall be kept on-site for the duration of construction activities and shall be made available for periodic inspection by City of Whittier staff or their designee.

MM 4.3-7 If electric or non-diesel off-road trucks and construction support equipment, including but not limited to hand tools, forklifts, aerial lifts, materials lifts, hoists, pressure washers, plate compactors, and air compressors are available in the construction contractor's equipment fleet and can fulfill the Project's construction requirements during the building construction, paving, and architectural coating phases of Project construction, such equipment shall be used during

Project construction. This requirement shall be noted on plans submitted for building permit issuance.

MM 4.3-8 Plans submitted for grading permit issuance and building permit issuance shall specify a designated area of the construction site where electric or non-diesel vehicles, equipment, and tools can be fueled or charged. The provision of temporary electric infrastructure for such purpose shall be approved by the utility provider, Southern California Edison (SCE). If SCE will not approve the installation of temporary power for this purpose, the establishment of a temporary electric charging area will not be required. If electric equipment will not be used on the construction site because the construction contractor(s) does not have such equipment in its fleet, the establishment of a temporary electric charging area also will not be required. If electric powered equipment is in the contractor(s) equipment fleet, and SCE approval is secured, the temporary charging location is required to be established upon issuance of grading permits and building permits.

MM 4.3-9 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable CARB anti-idling regulations. At a minimum, each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) instructions for drivers of diesel trucks to restrict idling to no more than three (3) minutes once the vehicle is stopped, the transmission is set to "neutral" or "park," and the parking brake is engaged; and 3) telephone numbers of the building facilities manager and the CARB to report violations. Prior to the issuance of an occupancy permit, the City shall conduct a site inspection to ensure that the signs are in place.

MM 4.3-10 During construction activities, the City shall conduct periodic inspections to verify compliance with construction-related mitigation measures pursuant to the Mitigation Monitoring and Reporting Program.

4.3.8 Significance of Impacts After Mitigation

Threshold a: Significant Unavoidable Cumulatively-Considerable Impact. As noted above, a majority of the Project's GHG emissions would be produced by mobile sources. Neither the Project Applicant nor the Lead Agency (City of Whittier) can substantively or materially affect reductions in Project mobile-source emissions beyond federal and State regulations. Accordingly, even with implementation of MM 1 though MM-10, the City finds that the Project's GHG emissions are a significant and unavoidable cumulatively-considerable impact for which no feasible mitigation is available.

Determining whether the Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project Site would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Green Building Standards Code (CALGreen) in effect at the time of building permit issuance, which will minimize the Projects' demand for energy, including energy produced from non-renewable sources.

The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years with a similar use in compliance with the site's existing Innovation (INN) General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation. The Project Site has 213,430 s.f. of existing building space and is proposed to be redeveloped with 295,959 s.f. of building space. The addition of 82,529 s.f. of building space, consistent with the Site's General Plan designation and zoning classification, is consistent with the City's planned growth. As stated previously, the Project would result in a significant direct and cumulatively-considerable impact related to the demolition of a building that as associative value to post WWII manufacturing and distribution activities. The loss of the Project Site's existing building is considered an irreversible environmental impact determined to be significant by this EIR. Also, the Project would result in a significant cumulatively considerable greenhouse gas (GHG) emission impact. The emission of GHGs contributes to global climate change and the Project's emissions would contribute to the exposure of future generations climate shifts, which contribute to environmental impacts.

Mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous materials used on-site would be safely and appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from the Project Site. Also, implementation of the Project would result in an improved environmental condition on the Project Site because existing hazardous materials would be ~~removed from~~ remediated on the property, contaminated soils would be ~~removed to a depth of 10 feet and properly disposed of off-site~~ addressed to the satisfaction of the California Department of Toxic Substances Control (DTSC), and soil vapor conditions would be remediated to be in compliance with regulatory limits.

The Project would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

Based on the above, Project construction and operation would require the commitment of limited, slowly renewable and non-renewable resources. However, this commitment of resources would not be substantial and would be consistent with regional and local growth forecasts and development goals for the area. The loss of such resources would not be highly accelerated when compared to existing conditions, and such resources

would not be used in an inefficient or wasteful manner. The Project is consistent with the Project Site's existing General Plan designation and zoning classification. Project construction and operation would adhere to the sustainability requirements of Title 24, Green Building Code, and CALGreen. Therefore, the Project would not result in the commitment of large quantities of natural resources that would result in significant irreversible environmental changes.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG's *Connect SoCal*, the City of Whittier's population is projected to grow by 11,800 residents between 2016 and 2045 (approximately 0.47 percent annual growth) (SCAG, 2020a). Over this same time period, employment in the City is expected to add 3,000 new jobs (approximately 0.29 percent annual job growth) (ibid). Economic growth would likely take place as a result of the Project's operation, but would merely replace employment opportunities that have been available on the Site since the 1950's. The Project entails redeveloping a property that has been used for manufacturing for the last 70+ years with a similar use in compliance with the site's existing Innovation (INN) General Plan designation and Whittier Boulevard Specific Plan's Workplace District zoning designation. The Project Site has 213,430 s.f. of existing building space and is proposed to be redeveloped with a 295,959 s.f. building. The addition of 82,529 s.f. of building space, consistent with the Site's General Plan designation and zoning classification, is consistent with the City's planned growth. The addition of 82,529 s.f. of non-residential building space on a site planned and zoned for the additional space represents less than one-one-hundredth of one percent (0.008 percent) of the City's total non-residential building space capacity and does not represent significant direct or cumulatively considerable growth that would induce growth on other properties.

The Project's employees (short-term construction and long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be accommodated by existing goods and service providers and, based on the amount of existing and planned future commercial and retail services available in areas near the Project Site, would be highly unlikely to result in any unanticipated, adverse physical impacts to the environment. In addition, the Project would create jobs, a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Whittier and nearby areas. Accordingly, because it is anticipated that most of the Project's future employees would already be living in the City of

defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters. (Ganddini, 2023a, p. 35)

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters. (Ganddini, 2023a, p. 35)

Operational-Related Regional Air Quality Impacts

The worst-case summer or winter criteria pollutant emissions created from the proposed project's long-term operations have been calculated and are shown below in Table 5-3, *Regional Operational Pollutant Emissions*. As summarized in Table 5-3, Project-related operational emissions of ROGs, NO_X, CO, SO_2, PM_{10} and $PM_{2.5}$ would not exceed SCAQMD regional criteria thresholds. Accordingly, the Project's regional air quality emissions during long-term operations would be less than significant.

Conclusion

As indicated in Table 5-2 and Table 5-3, the Project would not exceed any of the SCAQMD regional thresholds during either construction or long-term operation. As such, the Project would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant.

Table 5-3 Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO2	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	13.10	18.40	70.70	0.22	14.11~~6.08~~	3.89~~1.46~~
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes: CalEEMod Version 2022.1.1.13; the higher of either summer or winter emissions.
Source: (Ganddini, 2023a, Table 10)

Threshold "c:" Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact: Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The Project has the potential to expose sensitive receptors to substantial pollutant concentrations if Project construction or operational emissions were to exceed the SCAQMD Localized Significance Thresholds (LSTs). In addition, the Project has the potential to cause or contribute to CO "hot spots," and also has the potential to expose

area, the resulting concentrations of air pollutants are more highly concentrated once they reach the smaller site boundary than they would be for activities if they were spread out over a larger surface area. On a larger site, the same amount of air pollutants generated would disperse over a larger surface area and would result in a lower concentration once emissions reach the site boundary. The proposed Project was analyzed based on the Southeast Los Angeles County SRA 5 and as the Site is 13.49 acres, the screening thresholds for a five-acre project site were conservatively used to evaluate Project impacts. (Ganddini, 2023a, p. 37)

Table 5-5, *Local Operational Emissions at the Nearest Receptors*, shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to approximately 10 percent of the Project-related new mobile sources. The data provided in Table 5-5 shows that the on-going operations of the proposed Project would not exceed the SCAQMD operational LSTs. Therefore, the on-going operations of the proposed Project would create a less-than-significant operations-related impact to local air quality due to on-site emissions. (Ganddini, 2023a, p. 37)

Table 5-5 Local Operational Emissions at the Nearest Receptors

On-Site Emission Source	On-Site Pollutant Emissions (pounds/day)[1]			
	NOx	CO	PM_{10}	$PM_{2.5}$
Area Sources[2]	0.11	12.90	0.02	0.02
Energy Usage[3]	2.01	1.69	0.15	0.15
Vehicle Emissions[4]	1.64~~15.50~~	5.62~~56.20~~	1.39~~5.91~~	0.37~~1.28~~
Total Emissions	3.76~~17.62~~	20.21~~70.79~~	1.56~~6.08~~	0.54~~1.45~~
SCAQMD Thresholds[5]	172	1,480	4	2
Exceeds Threshold?	**No**	**No**	**No**	**No**

Notes:

1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres in SRA 5 Southeast Los Angeles County.
2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
3) Energy usage consists of emissions from on-site natural gas usage.
4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.
5) The nearest sensitive receptors are the existing multi- and single-family residential uses located adjacent to the west, the existing multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the existing single-family residential uses located approximately 700 feet (~213 meters) northeast of the Project Site; therefore, the 25-meter threshold was used.

Source: (Ganddini, 2023a. Table 11)

Carbon Monoxide "Hot Spot" Analysis

An adverse CO concentration, known as a "hot spot," would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 SCAQMD CEQA Air Quality Handbook, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4

Attachments to Comment Letter I
From Blum Hollins & Ho

Attachment A: Updated Construction Schedule
Attachment B: Updated CalEEMod Output Files
Attachment C: Matt Hagemann CV
Attachment D: Paul Rosenfeld CV

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Demolition	20	559	0.0358	380	14
Site Preparation	10	559	0.0179	380	7
Grading	30	559	0.0537	380	20
Construction	300	559	0.5367	380	204
Paving	20	559	0.0358	380	14
Architectural Coating	20	559	0.0358	380	14

	Total Default Construction Duration	Revised Construction Duration
Start Date	12/1/2023	12/1/2023
End Date	6/12/2025	12/15/2024
Total Days	559	380

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

19391 Whittier Boulevard Business Park

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	295.96	1000sqft	6.63	295,959.00	0
Parking Lot	417.00	Space	3.75	0.00	0
Other Non-Asphalt Surfaces	1.29	Acre	1.29	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	19
Climate Zone	7			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstatiated Changes to Individual Construction Phase Lengths".

Grading -

Vehicle Trips - Consistent with the DIER's model.

Fleet Mix - See SWAPE's comment on "Unsubstantiated Changes to Operational Vehicle Fleet Mix".

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	203.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	6/12/2025	12/16/2024
tblConstructionPhase	PhaseEndDate	4/17/2025	11/6/2024
tblConstructionPhase	PhaseEndDate	12/28/2023	12/20/2023
tblConstructionPhase	PhaseEndDate	2/22/2024	1/26/2024
tblConstructionPhase	PhaseEndDate	5/15/2025	11/26/2024
tblConstructionPhase	PhaseEndDate	1/11/2024	12/29/2023
tblConstructionPhase	PhaseStartDate	5/16/2025	11/27/2024
tblConstructionPhase	PhaseStartDate	2/23/2024	1/27/2024
tblConstructionPhase	PhaseStartDate	1/12/2024	12/30/2023
tblConstructionPhase	PhaseStartDate	4/18/2025	11/7/2024
tblConstructionPhase	PhaseStartDate	12/29/2023	12/21/2023
tblLandUse	LandUseSquareFeet	166,800.00	0.00
tblLandUse	LandUseSquareFeet	56,192.40	0.00
tblLandUse	LotAcreage	6.79	6.63
tblProjectCharacteristics	PrecipitationFrequency	33	19
tblProjectCharacteristics	WindSpeed	2.2	1.8
tblVehicleTrips	ST_TR	2.54	3.37
tblVehicleTrips	SU_TR	1.24	3.37

2.0 Emissions Summary

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023	3.3905	34.5649	28.7155	0.0640	19.8582	1.4258	21.1254	10.1558	1.3118	11.3217	0.0000	6,200.9484	6,200.9484	1.9493	4.9300e-003	6,251.1514
2024	196.2286	32.4209	28.3407	0.0639	9.4271	1.3367	10.7638	3.7130	1.2298	4.9428	0.0000	6,193.8666	6,193.8666	1.9483	0.1679	6,243.9401
Maximum	**196.2286**	**34.5649**	**28.7155**	**0.0640**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3118**	**11.3217**	**0.0000**	**6,200.9484**	**6,200.9484**	**1.9493**	**0.1679**	**6,251.1514**

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					
2023	3.3905	34.5649	28.7155	0.0640	19.8582	1.4258	21.1254	10.1558	1.3118	11.3217	0.0000	6,200.9484	6,200.9484	1.9493	4.9300e-003	6,251.1514
2024	196.2286	32.4209	28.3407	0.0639	9.4271	1.3367	10.7638	3.7130	1.2298	4.9428	0.0000	6,193.8666	6,193.8666	1.9483	0.1679	6,243.9401
Maximum	**196.2286**	**34.5649**	**28.7155**	**0.0640**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3118**	**11.3217**	**0.0000**	**6,200.9484**	**6,200.9484**	**1.9493**	**0.1679**	**6,251.1514**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Energy	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
Mobile	3.2240	3.7352	34.1178	0.0763	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		7,777.1264	7,777.1264	0.5234	0.3302	7,888.6012
Total	**9.9913**	**5.0896**	**35.3278**	**0.0844**	**8.3508**	**0.1591**	**8.5100**	**2.2244**	**0.1551**	**2.3796**		**9,401.8377**	**9,401.8377**	**0.5549**	**0.3600**	**9,522.9766**

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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Energy	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
Mobile	3.2240	3.7352	34.1178	0.0763	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		7,777.1264	7,777.1264	0.5234	0.3302	7,888.6012
Total	**9.9913**	**5.0896**	**35.3278**	**0.0844**	**8.3508**	**0.1591**	**8.5100**	**2.2244**	**0.1551**	**2.3796**		**9,401.8377**	**9,401.8377**	**0.5549**	**0.3600**	**9,522.9766**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	12/1/2023	12/20/2023	5	14	
2	Site Preparation	Site Preparation	12/21/2023	12/29/2023	5	7	
3	Grading	Grading	12/30/2023	1/26/2024	5	20	
4	Building Construction	Building Construction	1/27/2024	11/6/2024	5	203	
5	Paving	Paving	11/7/2024	11/26/2024	5	14	
6	Architectural Coating	Architectural Coating	11/27/2024	12/16/2024	5	14	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 443,939; Non-Residential Outdoor: 147,980; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	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
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	49.00	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	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0516	0.0370	0.4983	1.4100e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		142.1030	142.1030	3.8300e-003	3.7000e-003	143.3009
Total	**0.0516**	**0.0370**	**0.4983**	**1.4100e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**142.1030**	**142.1030**	**3.8300e-003**	**3.7000e-003**	**143.3009**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0444	0.5979	1.6900e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		170.5237	170.5237	4.6000e-003	4.4400e-003	171.9610
Total	**0.0619**	**0.0444**	**0.5979**	**1.6900e-003**	**0.2012**	**1.2100e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**170.5237**	**170.5237**	**4.6000e-003**	**4.4400e-003**	**171.9610**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0444	0.5979	1.6900e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		170.5237	170.5237	4.6000e-003	4.4400e-003	171.9610
Total	**0.0619**	**0.0444**	**0.5979**	**1.6900e-003**	**0.2012**	**1.2100e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**170.5237**	**170.5237**	**4.6000e-003**	**4.4400e-003**	**171.9610**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0688	0.0493	0.6644	1.8700e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		189.4707	189.4707	5.1100e-003	4.9300e-003	191.0678
Total	**0.0688**	**0.0493**	**0.6644**	**1.8700e-003**	**0.2236**	**1.3400e-003**	**0.2249**	**0.0593**	**1.2400e-003**	**0.0605**		**189.4707**	**189.4707**	**5.1100e-003**	**4.9300e-003**	**191.0678**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0688	0.0493	0.6644	1.8700e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		189.4707	189.4707	5.1100e-003	4.9300e-003	191.0678
Total	**0.0688**	**0.0493**	**0.6644**	**1.8700e-003**	**0.2236**	**1.3400e-003**	**0.2249**	**0.0593**	**1.2400e-003**	**0.0605**		**189.4707**	**189.4707**	**5.1100e-003**	**4.9300e-003**	**191.0678**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0440	0.6179	1.8200e-003	0.2236	1.2900e-003	0.2248	0.0593	1.1900e-003	0.0605		184.1179	184.1179	4.6300e-003	4.5800e-003	185.5996
Total	**0.0643**	**0.0440**	**0.6179**	**1.8200e-003**	**0.2236**	**1.2900e-003**	**0.2248**	**0.0593**	**1.1900e-003**	**0.0605**		**184.1179**	**184.1179**	**4.6300e-003**	**4.5800e-003**	**185.5996**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	0.0440	0.6179	1.8200e-003	0.2236	1.2900e-003	0.2248	0.0593	1.1900e-003	0.0605		184.1179	184.1179	4.6300e-003	4.5800e-003	185.5996
Total	**0.0643**	**0.0440**	**0.6179**	**1.8200e-003**	**0.2236**	**1.2900e-003**	**0.2248**	**0.0593**	**1.1900e-003**	**0.0605**		**184.1179**	**184.1179**	**4.6300e-003**	**4.5800e-003**	**185.5996**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0000
Vendor	0.0527	1.9732	0.7358	8.9900e-003	0.3139	9.5700e-003	0.3234	0.0904	9.1600e-003	0.0995		968.3102	968.3102	0.0329	0.1395	1,010.6996
Worker	0.3986	0.2727	3.8310	0.0113	1.3860	7.9800e-003	1.3940	0.3676	7.3500e-003	0.3749		1,141.5311	1,141.5311	0.0287	0.0284	1,150.7174
Total	**0.4512**	**2.2459**	**4.5667**	**0.0203**	**1.6999**	**0.0176**	**1.7175**	**0.4580**	**0.0165**	**0.4745**		**2,109.8413**	**2,109.8413**	**0.0616**	**0.1679**	**2,161.4170**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0000
Vendor	0.0527	1.9732	0.7358	8.9900e-003	0.3139	9.5700e-003	0.3234	0.0904	9.1600e-003	0.0995		968.3102	968.3102	0.0329	0.1395	1,010.6996
Worker	0.3986	0.2727	3.8310	0.0113	1.3860	7.9800e-003	1.3940	0.3676	7.3500e-003	0.3749		1,141.5311	1,141.5311	0.0287	0.0284	1,150.7174
Total	**0.4512**	**2.2459**	**4.5667**	**0.0203**	**1.6999**	**0.0176**	**1.7175**	**0.4580**	**0.0165**	**0.4745**		**2,109.8413**	**2,109.8413**	**0.0616**	**0.1679**	**2,161.4170**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6900**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0482	0.0330	0.4634	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0884	138.0884	3.4700e-003	3.4400e-003	139.1997
Total	**0.0482**	**0.0330**	**0.4634**	**1.3700e-003**	**0.1677**	**9.7000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0884**	**138.0884**	**3.4700e-003**	**3.4400e-003**	**139.1997**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6900**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0482	0.0330	0.4634	1.3700e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		138.0884	138.0884	3.4700e-003	3.4400e-003	139.1997
Total	**0.0482**	**0.0330**	**0.4634**	**1.3700e-003**	**0.1677**	**9.7000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**138.0884**	**138.0884**	**3.4700e-003**	**3.4400e-003**	**139.1997**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	195.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**196.1482**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0804	0.0550	0.7724	2.2800e-003	0.2794	1.6100e-003	0.2811	0.0741	1.4800e-003	0.0756		230.1474	230.1474	5.7900e-003	5.7300e-003	231.9995
Total	**0.0804**	**0.0550**	**0.7724**	**2.2800e-003**	**0.2794**	**1.6100e-003**	**0.2811**	**0.0741**	**1.4800e-003**	**0.0756**		**230.1474**	**230.1474**	**5.7900e-003**	**5.7300e-003**	**231.9995**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	195.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**196.1482**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0804	0.0550	0.7724	2.2800e-003	0.2794	1.6100e-003	0.2811	0.0741	1.4800e-003	0.0756		230.1474	230.1474	5.7900e-003	5.7300e-003	231.9995
Total	**0.0804**	**0.0550**	**0.7724**	**2.2800e-003**	**0.2794**	**1.6100e-003**	**0.2811**	**0.0741**	**1.4800e-003**	**0.0756**		**230.1474**	**230.1474**	**5.7900e-003**	**5.7300e-003**	**231.9995**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.2240	3.7352	34.1178	0.0763	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		7,777.1264	7,777.1264	0.5234	0.3302	7,888.6012
Unmitigated	3.2240	3.7352	34.1178	0.0763	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		7,777.1264	7,777.1264	0.5234	0.3302	7,888.6012

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	997.38	997.38	997.38	3,966,474	3,966,474
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	997.38	997.38	997.38	3,966,474	3,966,474

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
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

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	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
NaturalGas Unmitigated	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	13808.7	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1489**	**1.3538**	**1.1372**	**8.1200e-003**		**0.1029**	**0.1029**		**0.1029**	**0.1029**		**1,624.5550**	**1,624.5550**	**0.0311**	**0.0298**	**1,634.2089**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	13.8087	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1489**	**1.3538**	**1.1372**	**8.1200e-003**		**0.1029**	**0.1029**		**0.1029**	**0.1029**		**1,624.5550**	**1,624.5550**	**0.0311**	**0.0298**	**1,634.2089**

6.0 Area Detail

6.1 Mitigation Measures Area

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Unmitigated	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665

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	0.7517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7200e-003	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Total	**6.6184**	**6.6000e-004**	**0.0728**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1563**	**0.1563**	**4.1000e-004**		**0.1665**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.7517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7200e-003	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Total	**6.6184**	**6.6000e-004**	**0.0728**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1563**	**0.1563**	**4.1000e-004**		**0.1665**

7.0 Water Detail

7.1 Mitigation Measures Water

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

19391 Whittier Boulevard Business Park

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	295.96	1000sqft	6.63	295,959.00	0
Parking Lot	417.00	Space	3.75	0.00	0
Other Non-Asphalt Surfaces	1.29	Acre	1.29	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	19
Climate Zone	7			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstatiated Changes to Individual Construction Phase Lengths".

Grading -

Vehicle Trips - Consistent with the DIER's model.

Fleet Mix - See SWAPE's comment on "Unsubstantiated Changes to Operational Vehicle Fleet Mix".

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	203.00

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	6/12/2025	12/16/2024
tblConstructionPhase	PhaseEndDate	4/17/2025	11/6/2024
tblConstructionPhase	PhaseEndDate	12/28/2023	12/20/2023
tblConstructionPhase	PhaseEndDate	2/22/2024	1/26/2024
tblConstructionPhase	PhaseEndDate	5/15/2025	11/26/2024
tblConstructionPhase	PhaseEndDate	1/11/2024	12/29/2023
tblConstructionPhase	PhaseStartDate	5/16/2025	11/27/2024
tblConstructionPhase	PhaseStartDate	2/23/2024	1/27/2024
tblConstructionPhase	PhaseStartDate	1/12/2024	12/30/2023
tblConstructionPhase	PhaseStartDate	4/18/2025	11/7/2024
tblConstructionPhase	PhaseStartDate	12/29/2023	12/21/2023
tblLandUse	LandUseSquareFeet	166,800.00	0.00
tblLandUse	LandUseSquareFeet	56,192.40	0.00
tblLandUse	LotAcreage	6.79	6.63
tblProjectCharacteristics	PrecipitationFrequency	33	19
tblProjectCharacteristics	WindSpeed	2.2	1.8
tblVehicleTrips	ST_TR	2.54	3.37
tblVehicleTrips	SU_TR	1.24	3.37

2.0 Emissions Summary

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023	3.3857	34.5602	28.7740	0.0641	19.8582	1.4258	21.1254	10.1558	1.3118	11.3217	0.0000	6,211.4928	6,211.4928	1.9493	4.6200e-003	6,261.6003
2024	196.2228	32.4168	28.3945	0.0640	9.4271	1.3367	10.7638	3.7130	1.2298	4.9428	0.0000	6,204.0947	6,204.0947	1.9482	0.1657	6,254.0798
Maximum	**196.2228**	**34.5602**	**28.7740**	**0.0641**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3118**	**11.3217**	**0.0000**	**6,211.4928**	**6,211.4928**	**1.9493**	**0.1657**	**6,261.6003**

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					
2023	3.3857	34.5602	28.7740	0.0641	19.8582	1.4258	21.1254	10.1558	1.3118	11.3217	0.0000	6,211.4928	6,211.4928	1.9493	4.6200e-003	6,261.6003
2024	196.2228	32.4168	28.3945	0.0640	9.4271	1.3367	10.7638	3.7130	1.2298	4.9428	0.0000	6,204.0947	6,204.0947	1.9482	0.1657	6,254.0798
Maximum	**196.2228**	**34.5602**	**28.7740**	**0.0641**	**19.8582**	**1.4258**	**21.1254**	**10.1558**	**1.3118**	**11.3217**	**0.0000**	**6,211.4928**	**6,211.4928**	**1.9493**	**0.1657**	**6,261.6003**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Energy	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
Mobile	3.2739	3.4592	35.0609	0.0797	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		8,122.5334	8,122.5334	0.5112	0.3164	8,229.6041
Total	**10.0411**	**4.8137**	**36.2709**	**0.0878**	**8.3508**	**0.1591**	**8.5100**	**2.2244**	**0.1551**	**2.3795**		**9,747.2447**	**9,747.2447**	**0.5428**	**0.3462**	**9,863.9795**

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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Energy	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
Mobile	3.2739	3.4592	35.0609	0.0797	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		8,122.5334	8,122.5334	0.5112	0.3164	8,229.6041
Total	**10.0411**	**4.8137**	**36.2709**	**0.0878**	**8.3508**	**0.1591**	**8.5100**	**2.2244**	**0.1551**	**2.3795**		**9,747.2447**	**9,747.2447**	**0.5428**	**0.3462**	**9,863.9795**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	12/1/2023	12/20/2023	5	14	
2	Site Preparation	Site Preparation	12/21/2023	12/29/2023	5	7	
3	Grading	Grading	12/30/2023	1/26/2024	5	20	
4	Building Construction	Building Construction	1/27/2024	11/6/2024	5	203	
5	Paving	Paving	11/7/2024	11/26/2024	5	14	
6	Architectural Coating	Architectural Coating	11/27/2024	12/16/2024	5	14	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 443,939; Non-Residential Outdoor: 147,980; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	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
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	49.00	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	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

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	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**		**0.9975**	**0.9975**		**0.9280**	**0.9280**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0335	0.5421	1.4800e-003	0.1677	1.0100e-003	0.1687	0.0445	9.3000e-004	0.0454		150.0113	150.0113	3.7800e-003	3.4600e-003	151.1375
Total	**0.0480**	**0.0335**	**0.5421**	**1.4800e-003**	**0.1677**	**1.0100e-003**	**0.1687**	**0.0445**	**9.3000e-004**	**0.0454**		**150.0113**	**150.0113**	**3.7800e-003**	**3.4600e-003**	**151.1375**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0402	0.6505	1.7800e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		180.0136	180.0136	4.5400e-003	4.1500e-003	181.3650
Total	**0.0576**	**0.0402**	**0.6505**	**1.7800e-003**	**0.2012**	**1.2100e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**180.0136**	**180.0136**	**4.5400e-003**	**4.1500e-003**	**181.3650**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0576	0.0402	0.6505	1.7800e-003	0.2012	1.2100e-003	0.2024	0.0534	1.1100e-003	0.0545		180.0136	180.0136	4.5400e-003	4.1500e-003	181.3650
Total	**0.0576**	**0.0402**	**0.6505**	**1.7800e-003**	**0.2012**	**1.2100e-003**	**0.2024**	**0.0534**	**1.1100e-003**	**0.0545**		**180.0136**	**180.0136**	**4.5400e-003**	**4.1500e-003**	**181.3650**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0446	0.7228	1.9800e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		200.0151	200.0151	5.0400e-003	4.6200e-003	201.5167
Total	**0.0640**	**0.0446**	**0.7228**	**1.9800e-003**	**0.2236**	**1.3400e-003**	**0.2249**	**0.0593**	**1.2400e-003**	**0.0605**		**200.0151**	**200.0151**	**5.0400e-003**	**4.6200e-003**	**201.5167**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.2036**	**1.4245**	**10.6281**	**3.6538**	**1.3105**	**4.9643**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0640	0.0446	0.7228	1.9800e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		200.0151	200.0151	5.0400e-003	4.6200e-003	201.5167
Total	**0.0640**	**0.0446**	**0.7228**	**1.9800e-003**	**0.2236**	**1.3400e-003**	**0.2249**	**0.0593**	**1.2400e-003**	**0.0605**		**200.0151**	**200.0151**	**5.0400e-003**	**4.6200e-003**	**201.5167**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0596	0.0398	0.6717	1.9200e-003	0.2236	1.2900e-003	0.2248	0.0593	1.1900e-003	0.0605		194.3460	194.3460	4.5600e-003	4.2900e-003	195.7393
Total	**0.0596**	**0.0398**	**0.6717**	**1.9200e-003**	**0.2236**	**1.2900e-003**	**0.2248**	**0.0593**	**1.1900e-003**	**0.0605**		**194.3460**	**194.3460**	**4.5600e-003**	**4.2900e-003**	**195.7393**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2024

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0596	0.0398	0.6717	1.9200e-003	0.2236	1.2900e-003	0.2248	0.0593	1.1900e-003	0.0605		194.3460	194.3460	4.5600e-003	4.2900e-003	195.7393
Total	**0.0596**	**0.0398**	**0.6717**	**1.9200e-003**	**0.2236**	**1.2900e-003**	**0.2248**	**0.0593**	**1.1900e-003**	**0.0605**		**194.3460**	**194.3460**	**4.5600e-003**	**4.2900e-003**	**195.7393**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0000
Vendor	0.0547	1.8846	0.7131	8.9700e-003	0.3139	9.5200e-003	0.3234	0.0904	9.1000e-003	0.0995		966.6456	966.6456	0.0330	0.1391	1,008.9296
Worker	0.3697	0.2469	4.1642	0.0119	1.3860	7.9800e-003	1.3940	0.3676	7.3500e-003	0.3749		1,204.9453	1,204.9453	0.0283	0.0266	1,213.5836
Total	**0.4244**	**2.1315**	**4.8773**	**0.0209**	**1.6999**	**0.0175**	**1.7174**	**0.4580**	**0.0165**	**0.4744**		**2,171.5909**	**2,171.5909**	**0.0613**	**0.1657**	**2,222.5132**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0000
Vendor	0.0547	1.8846	0.7131	8.9700e-003	0.3139	9.5200e-003	0.3234	0.0904	9.1000e-003	0.0995		966.6456	966.6456	0.0330	0.1391	1,008.9296
Worker	0.3697	0.2469	4.1642	0.0119	1.3860	7.9800e-003	1.3940	0.3676	7.3500e-003	0.3749		1,204.9453	1,204.9453	0.0283	0.0266	1,213.5836
Total	**0.4244**	**2.1315**	**4.8773**	**0.0209**	**1.6999**	**0.0175**	**1.7174**	**0.4580**	**0.0165**	**0.4744**		**2,171.5909**	**2,171.5909**	**0.0613**	**0.1657**	**2,222.5132**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6900**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0447	0.0299	0.5037	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		145.7595	145.7595	3.4200e-003	3.2200e-003	146.8045
Total	**0.0447**	**0.0299**	**0.5037**	**1.4400e-003**	**0.1677**	**9.7000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**145.7595**	**145.7595**	**3.4200e-003**	**3.2200e-003**	**146.8045**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6900**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0447	0.0299	0.5037	1.4400e-003	0.1677	9.7000e-004	0.1686	0.0445	8.9000e-004	0.0454		145.7595	145.7595	3.4200e-003	3.2200e-003	146.8045
Total	**0.0447**	**0.0299**	**0.5037**	**1.4400e-003**	**0.1677**	**9.7000e-004**	**0.1686**	**0.0445**	**8.9000e-004**	**0.0454**		**145.7595**	**145.7595**	**3.4200e-003**	**3.2200e-003**	**146.8045**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	195.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**196.1482**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0745	0.0498	0.8396	2.4000e-003	0.2794	1.6100e-003	0.2811	0.0741	1.4800e-003	0.0756		242.9325	242.9325	5.7000e-003	5.3700e-003	244.6741
Total	**0.0745**	**0.0498**	**0.8396**	**2.4000e-003**	**0.2794**	**1.6100e-003**	**0.2811**	**0.0741**	**1.4800e-003**	**0.0756**		**242.9325**	**242.9325**	**5.7000e-003**	**5.3700e-003**	**244.6741**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

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	195.9675					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**196.1482**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0745	0.0498	0.8396	2.4000e-003	0.2794	1.6100e-003	0.2811	0.0741	1.4800e-003	0.0756		242.9325	242.9325	5.7000e-003	5.3700e-003	244.6741
Total	**0.0745**	**0.0498**	**0.8396**	**2.4000e-003**	**0.2794**	**1.6100e-003**	**0.2811**	**0.0741**	**1.4800e-003**	**0.0756**		**242.9325**	**242.9325**	**5.7000e-003**	**5.3700e-003**	**244.6741**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	3.2739	3.4592	35.0609	0.0797	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		8,122.5334	8,122.5334	0.5112	0.3164	8,229.6041
Unmitigated	3.2739	3.4592	35.0609	0.0797	8.3508	0.0560	8.4068	2.2244	0.0520	2.2764		8,122.5334	8,122.5334	0.5112	0.3164	8,229.6041

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	997.38	997.38	997.38	3,966,474	3,966,474
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	997.38	997.38	997.38	3,966,474	3,966,474

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
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

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	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
NaturalGas Unmitigated	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	13808.7	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1489**	**1.3538**	**1.1372**	**8.1200e-003**		**0.1029**	**0.1029**		**0.1029**	**0.1029**		**1,624.5550**	**1,624.5550**	**0.0311**	**0.0298**	**1,634.2089**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	13.8087	0.1489	1.3538	1.1372	8.1200e-003		0.1029	0.1029		0.1029	0.1029		1,624.5550	1,624.5550	0.0311	0.0298	1,634.2089
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.1489**	**1.3538**	**1.1372**	**8.1200e-003**		**0.1029**	**0.1029**		**0.1029**	**0.1029**		**1,624.5550**	**1,624.5550**	**0.0311**	**0.0298**	**1,634.2089**

6.0 Area Detail

6.1 Mitigation Measures Area

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Unmitigated	6.6184	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665

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	0.7517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7200e-003	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Total	**6.6184**	**6.6000e-004**	**0.0728**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1563**	**0.1563**	**4.1000e-004**		**0.1665**

19391 Whittier Boulevard Business Park - Los Angeles-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.7517					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.8600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7200e-003	6.6000e-004	0.0728	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1563	0.1563	4.1000e-004		0.1665
Total	**6.6184**	**6.6000e-004**	**0.0728**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1563**	**0.1563**	**4.1000e-004**		**0.1665**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

19391 Whittier Boulevard Business Park

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Industrial Park	295.96	1000sqft	6.63	295,959.00	0
Parking Lot	417.00	Space	3.75	0.00	0
Other Non-Asphalt Surfaces	1.29	Acre	1.29	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	1.8	**Precipitation Freq (Days)**	19
Climate Zone	7			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - See SWAPE's comment on "Unsubstatiated Changes to Individual Construction Phase Lengths".

Grading -

Vehicle Trips - Consistent with the DIER's model.

Fleet Mix - See SWAPE's comment on "Unsubstantiated Changes to Operational Vehicle Fleet Mix".

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	300.00	203.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	30.00	20.00
tblConstructionPhase	NumDays	20.00	14.00
tblConstructionPhase	NumDays	10.00	7.00
tblConstructionPhase	PhaseEndDate	6/12/2025	12/16/2024
tblConstructionPhase	PhaseEndDate	4/17/2025	11/6/2024
tblConstructionPhase	PhaseEndDate	12/28/2023	12/20/2023
tblConstructionPhase	PhaseEndDate	2/22/2024	1/26/2024
tblConstructionPhase	PhaseEndDate	5/15/2025	11/26/2024
tblConstructionPhase	PhaseEndDate	1/11/2024	12/29/2023
tblConstructionPhase	PhaseStartDate	5/16/2025	11/27/2024
tblConstructionPhase	PhaseStartDate	2/23/2024	1/27/2024
tblConstructionPhase	PhaseStartDate	1/12/2024	12/30/2023
tblConstructionPhase	PhaseStartDate	4/18/2025	11/7/2024
tblConstructionPhase	PhaseStartDate	12/29/2023	12/21/2023
tblLandUse	LandUseSquareFeet	166,800.00	0.00
tblLandUse	LandUseSquareFeet	56,192.40	0.00
tblLandUse	LotAcreage	6.79	6.63
tblProjectCharacteristics	PrecipitationFrequency	33	19
tblProjectCharacteristics	WindSpeed	2.2	1.8
tblVehicleTrips	ST_TR	2.54	3.37
tblVehicleTrips	SU_TR	1.24	3.37

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
2023	0.0257	0.2472	0.2071	4.2000e-004	0.1025	0.0114	0.1139	0.0393	0.0106	0.0499	0.0000	36.9676	36.9676	0.0105	4.0000e-005	37.2412
2024	1.6105	1.9937	2.5206	5.6600e-003	0.2680	0.0811	0.3491	0.0840	0.0760	0.1600	0.0000	505.4697	505.4697	0.0837	0.0156	512.2075
Maximum	**1.6105**	**1.9937**	**2.5206**	**5.6600e-003**	**0.2680**	**0.0811**	**0.3491**	**0.0840**	**0.0760**	**0.1600**	**0.0000**	**505.4697**	**505.4697**	**0.0837**	**0.0156**	**512.2075**

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					
2023	0.0257	0.2472	0.2071	4.2000e-004	0.1025	0.0114	0.1139	0.0393	0.0106	0.0499	0.0000	36.9675	36.9675	0.0105	4.0000e-005	37.2411
2024	1.6105	1.9937	2.5206	5.6600e-003	0.2680	0.0811	0.3491	0.0840	0.0760	0.1600	0.0000	505.4694	505.4694	0.0837	0.0156	512.2072
Maximum	**1.6105**	**1.9937**	**2.5206**	**5.6600e-003**	**0.2680**	**0.0811**	**0.3491**	**0.0840**	**0.0760**	**0.1600**	**0.0000**	**505.4694**	**505.4694**	**0.0837**	**0.0156**	**512.2072**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	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	**12-1-2023**	**2-29-2024**	0.8402	0.8402
2	**3-1-2024**	**5-31-2024**	0.5756	0.5756
3	**6-1-2024**	**8-31-2024**	0.5741	0.5741
4	**9-1-2024**	**9-30-2024**	0.1872	0.1872
		Highest	0.8402	0.8402

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	1.2075	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189
Energy	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	775.9878	775.9878	0.0480	0.0101	780.2018
Mobile	0.5780	0.6902	6.2724	0.0140	1.5028	0.0102	1.5130	0.4007	9.4500e-003	0.4101	0.0000	1,297.7989	1,297.7989	0.0860	0.0549	1,316.3079
Waste						0.0000	0.0000		0.0000	0.0000	74.4957	0.0000	74.4957	4.4026	0.0000	184.5598
Water						0.0000	0.0000		0.0000	0.0000	21.7131	158.0445	179.7576	2.2435	0.0543	252.0187
Total	**1.8127**	**0.9374**	**6.4890**	**0.0155**	**1.5028**	**0.0290**	**1.5318**	**0.4007**	**0.0283**	**0.4289**	**96.2087**	**2,231.8489**	**2,328.0577**	**6.7801**	**0.1193**	**2,533.1071**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	1.2075	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189
Energy	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	775.9878	775.9878	0.0480	0.0101	780.2018
Mobile	0.5780	0.6902	6.2724	0.0140	1.5028	0.0102	1.5130	0.4007	9.4500e-003	0.4101	0.0000	1,297.7989	1,297.7989	0.0860	0.0549	1,316.3079
Waste						0.0000	0.0000		0.0000	0.0000	74.4957	0.0000	74.4957	4.4026	0.0000	184.5598
Water						0.0000	0.0000		0.0000	0.0000	21.7131	158.0445	179.7576	2.2435	0.0543	252.0187
Total	**1.8127**	**0.9374**	**6.4890**	**0.0155**	**1.5028**	**0.0290**	**1.5318**	**0.4007**	**0.0283**	**0.4289**	**96.2087**	**2,231.8489**	**2,328.0577**	**6.7801**	**0.1193**	**2,533.1071**

	ROG	NOx	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	12/1/2023	12/20/2023	5	14	
2	Site Preparation	Site Preparation	12/21/2023	12/29/2023	5	7	
3	Grading	Grading	12/30/2023	1/26/2024	5	20	

4	Building Construction	Building Construction	1/27/2024	11/6/2024	5	203	
5	Paving	Paving	11/7/2024	11/26/2024	5	14	
6	Architectural Coating	Architectural Coating	11/27/2024	12/16/2024	5	14	

Acres of Grading (Site Preparation Phase): 10.5

Acres of Grading (Grading Phase): 60

Acres of Paving: 5.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 443,939; Non-Residential Outdoor: 147,980; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	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
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	124.00	49.00	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	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0159	0.1504	0.1375	2.7000e-004		6.9800e-003	6.9800e-003		6.5000e-003	6.5000e-003	0.0000	23.7945	23.7945	6.6600e-003	0.0000	23.9610
Total	**0.0159**	**0.1504**	**0.1375**	**2.7000e-004**		**6.9800e-003**	**6.9800e-003**		**6.5000e-003**	**6.5000e-003**	**0.0000**	**23.7945**	**23.7945**	**6.6600e-003**	**0.0000**	**23.9610**

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3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	3.5800e-003	1.0000e-005	1.1600e-003	1.0000e-005	1.1700e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9159	0.9159	2.0000e-005	2.0000e-005	0.9236
Total	**3.3000e-004**	**2.6000e-004**	**3.5800e-003**	**1.0000e-005**	**1.1600e-003**	**1.0000e-005**	**1.1700e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9159**	**0.9159**	**2.0000e-005**	**2.0000e-005**	**0.9236**

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	0.0159	0.1504	0.1375	2.7000e-004		6.9800e-003	6.9800e-003		6.5000e-003	6.5000e-003	0.0000	23.7944	23.7944	6.6600e-003	0.0000	23.9610
Total	**0.0159**	**0.1504**	**0.1375**	**2.7000e-004**		**6.9800e-003**	**6.9800e-003**		**6.5000e-003**	**6.5000e-003**	**0.0000**	**23.7944**	**23.7944**	**6.6600e-003**	**0.0000**	**23.9610**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	3.5800e-003	1.0000e-005	1.1600e-003	1.0000e-005	1.1700e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9159	0.9159	2.0000e-005	2.0000e-005	0.9236
Total	**3.3000e-004**	**2.6000e-004**	**3.5800e-003**	**1.0000e-005**	**1.1600e-003**	**1.0000e-005**	**1.1700e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.9159**	**0.9159**	**2.0000e-005**	**2.0000e-005**	**0.9236**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0688	0.0000	0.0688	0.0354	0.0000	0.0354	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.0963	0.0639	1.3000e-004		4.4300e-003	4.4300e-003		4.0800e-003	4.0800e-003	0.0000	11.7077	11.7077	3.7900e-003	0.0000	11.8024
Total	**9.3100e-003**	**0.0963**	**0.0639**	**1.3000e-004**	**0.0688**	**4.4300e-003**	**0.0732**	**0.0354**	**4.0800e-003**	**0.0394**	**0.0000**	**11.7077**	**11.7077**	**3.7900e-003**	**0.0000**	**11.8024**

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3.3 Site Preparation - 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	2.0000e-004	1.6000e-004	2.1500e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5495	0.5495	1.0000e-005	1.0000e-005	0.5541
Total	**2.0000e-004**	**1.6000e-004**	**2.1500e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.0000e-004**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5495**	**0.5495**	**1.0000e-005**	**1.0000e-005**	**0.5541**

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					0.0688	0.0000	0.0688	0.0354	0.0000	0.0354	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3100e-003	0.0963	0.0639	1.3000e-004		4.4300e-003	4.4300e-003		4.0800e-003	4.0800e-003	0.0000	11.7077	11.7077	3.7900e-003	0.0000	11.8024
Total	**9.3100e-003**	**0.0963**	**0.0639**	**1.3000e-004**	**0.0688**	**4.4300e-003**	**0.0732**	**0.0354**	**4.0800e-003**	**0.0394**	**0.0000**	**11.7077**	**11.7077**	**3.7900e-003**	**0.0000**	**11.8024**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 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	2.0000e-004	1.6000e-004	2.1500e-003	1.0000e-005	7.0000e-004	0.0000	7.0000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5495	0.5495	1.0000e-005	1.0000e-005	0.5541
Total	**2.0000e-004**	**1.6000e-004**	**2.1500e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.0000e-004**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5495**	**0.5495**	**1.0000e-005**	**1.0000e-005**	**0.5541**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0318	0.0000	0.0318	3.4400e-003	0.0000	3.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0318**	**0.0000**	**0.0318**	**3.4400e-003**	**0.0000**	**3.4400e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 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	0.0000	0.0000	0.0000	0.0000	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**	**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	tons/yr										MT/yr					
Fugitive Dust					0.0318	0.0000	0.0318	3.4400e-003	0.0000	3.4400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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**	**0.0318**	**0.0000**	**0.0318**	**3.4400e-003**	**0.0000**	**3.4400e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0920	0.0000	0.0920	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3238	0.2772	6.2000e-004		0.0134	0.0134		0.0123	0.0123	0.0000	54.5195	54.5195	0.0176	0.0000	54.9603
Total	**0.0322**	**0.3238**	**0.2772**	**6.2000e-004**	**0.0920**	**0.0134**	**0.1054**	**0.0365**	**0.0123**	**0.0488**	**0.0000**	**54.5195**	**54.5195**	**0.0176**	**0.0000**	**54.9603**

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3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	6.3400e-003	2.0000e-005	2.2100e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6952	1.6952	4.0000e-005	4.0000e-005	1.7088
Total	**5.9000e-004**	**4.5000e-004**	**6.3400e-003**	**2.0000e-005**	**2.2100e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6952**	**1.6952**	**4.0000e-005**	**4.0000e-005**	**1.7088**

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					0.0920	0.0000	0.0920	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0322	0.3238	0.2772	6.2000e-004		0.0134	0.0134		0.0123	0.0123	0.0000	54.5195	54.5195	0.0176	0.0000	54.9603
Total	**0.0322**	**0.3238**	**0.2772**	**6.2000e-004**	**0.0920**	**0.0134**	**0.1054**	**0.0365**	**0.0123**	**0.0488**	**0.0000**	**54.5195**	**54.5195**	**0.0176**	**0.0000**	**54.9603**

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3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	6.3400e-003	2.0000e-005	2.2100e-003	1.0000e-005	2.2200e-003	5.9000e-004	1.0000e-005	6.0000e-004	0.0000	1.6952	1.6952	4.0000e-005	4.0000e-005	1.7088
Total	**5.9000e-004**	**4.5000e-004**	**6.3400e-003**	**2.0000e-005**	**2.2100e-003**	**1.0000e-005**	**2.2200e-003**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**1.6952**	**1.6952**	**4.0000e-005**	**4.0000e-005**	**1.7088**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1494	1.3645	1.6409	2.7400e-003		0.0623	0.0623		0.0586	0.0586	0.0000	235.3268	235.3268	0.0557	0.0000	236.7180
Total	**0.1494**	**1.3645**	**1.6409**	**2.7400e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**235.3268**	**235.3268**	**0.0557**	**0.0000**	**236.7180**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4400e-003	0.2008	0.0734	9.1000e-004	0.0316	9.7000e-004	0.0325	9.1000e-003	9.3000e-004	0.0100	0.0000	89.0725	89.0725	3.0300e-003	0.0128	92.9721
Worker	0.0373	0.0283	0.3988	1.1600e-003	0.1391	8.1000e-004	0.1399	0.0369	7.5000e-004	0.0377	0.0000	106.6766	106.6766	2.6400e-003	2.6600e-003	107.5342
Total	**0.0427**	**0.2291**	**0.4722**	**2.0700e-003**	**0.1707**	**1.7800e-003**	**0.1724**	**0.0460**	**1.6800e-003**	**0.0477**	**0.0000**	**195.7491**	**195.7491**	**5.6700e-003**	**0.0155**	**200.5063**

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	0.1494	1.3645	1.6409	2.7400e-003		0.0623	0.0623		0.0586	0.0586	0.0000	235.3266	235.3266	0.0557	0.0000	236.7178
Total	**0.1494**	**1.3645**	**1.6409**	**2.7400e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**235.3266**	**235.3266**	**0.0557**	**0.0000**	**236.7178**

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3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4400e-003	0.2008	0.0734	9.1000e-004	0.0316	9.7000e-004	0.0325	9.1000e-003	9.3000e-004	0.0100	0.0000	89.0725	89.0725	3.0300e-003	0.0128	92.9721
Worker	0.0373	0.0283	0.3988	1.1600e-003	0.1391	8.1000e-004	0.1399	0.0369	7.5000e-004	0.0377	0.0000	106.6766	106.6766	2.6400e-003	2.6600e-003	107.5342
Total	**0.0427**	**0.2291**	**0.4722**	**2.0700e-003**	**0.1707**	**1.7800e-003**	**0.1724**	**0.0460**	**1.6800e-003**	**0.0477**	**0.0000**	**195.7491**	**195.7491**	**5.6700e-003**	**0.0155**	**200.5063**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9200e-003	0.0667	0.1024	1.6000e-004		3.2800e-003	3.2800e-003		3.0200e-003	3.0200e-003	0.0000	14.0186	14.0186	4.5300e-003	0.0000	14.1319
Paving	4.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0118**	**0.0667**	**0.1024**	**1.6000e-004**		**3.2800e-003**	**3.2800e-003**		**3.0200e-003**	**3.0200e-003**	**0.0000**	**14.0186**	**14.0186**	**4.5300e-003**	**0.0000**	**14.1319**

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3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	3.3300e-003	1.0000e-005	1.1600e-003	1.0000e-005	1.1700e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.8900	0.8900	2.0000e-005	2.0000e-005	0.8971
Total	**3.1000e-004**	**2.4000e-004**	**3.3300e-003**	**1.0000e-005**	**1.1600e-003**	**1.0000e-005**	**1.1700e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8900**	**0.8900**	**2.0000e-005**	**2.0000e-005**	**0.8971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.9200e-003	0.0667	0.1024	1.6000e-004		3.2800e-003	3.2800e-003		3.0200e-003	3.0200e-003	0.0000	14.0186	14.0186	4.5300e-003	0.0000	14.1319
Paving	4.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0118**	**0.0667**	**0.1024**	**1.6000e-004**		**3.2800e-003**	**3.2800e-003**		**3.0200e-003**	**3.0200e-003**	**0.0000**	**14.0186**	**14.0186**	**4.5300e-003**	**0.0000**	**14.1319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.4000e-004	3.3300e-003	1.0000e-005	1.1600e-003	1.0000e-005	1.1700e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.8900	0.8900	2.0000e-005	2.0000e-005	0.8971
Total	**3.1000e-004**	**2.4000e-004**	**3.3300e-003**	**1.0000e-005**	**1.1600e-003**	**1.0000e-005**	**1.1700e-003**	**3.1000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8900**	**0.8900**	**2.0000e-005**	**2.0000e-005**	**0.8971**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3718					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	8.5300e-003	0.0127	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.7873	1.7873	1.0000e-004	0.0000	1.7898
Total	**1.3730**	**8.5300e-003**	**0.0127**	**2.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**1.7873**	**1.7873**	**1.0000e-004**	**0.0000**	**1.7898**

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3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.9000e-004	5.5400e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4833	1.4833	4.0000e-005	4.0000e-005	1.4952
Total	**5.2000e-004**	**3.9000e-004**	**5.5400e-003**	**2.0000e-005**	**1.9300e-003**	**1.0000e-005**	**1.9500e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.4833**	**1.4833**	**4.0000e-005**	**4.0000e-005**	**1.4952**

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	1.3718					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2700e-003	8.5300e-003	0.0127	2.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	1.7873	1.7873	1.0000e-004	0.0000	1.7898
Total	**1.3730**	**8.5300e-003**	**0.0127**	**2.0000e-005**		**4.3000e-004**	**4.3000e-004**		**4.3000e-004**	**4.3000e-004**	**0.0000**	**1.7873**	**1.7873**	**1.0000e-004**	**0.0000**	**1.7898**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.9000e-004	5.5400e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9500e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4833	1.4833	4.0000e-005	4.0000e-005	1.4952
Total	**5.2000e-004**	**3.9000e-004**	**5.5400e-003**	**2.0000e-005**	**1.9300e-003**	**1.0000e-005**	**1.9500e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.4833**	**1.4833**	**4.0000e-005**	**4.0000e-005**	**1.4952**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5780	0.6902	6.2724	0.0140	1.5028	0.0102	1.5130	0.4007	9.4500e-003	0.4101	0.0000	1,297.7989	1,297.7989	0.0860	0.0549	1,316.3079
Unmitigated	0.5780	0.6902	6.2724	0.0140	1.5028	0.0102	1.5130	0.4007	9.4500e-003	0.4101	0.0000	1,297.7989	1,297.7989	0.0860	0.0549	1,316.3079

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Industrial Park	997.38	997.38	997.38	3,966,474	3,966,474
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	997.38	997.38	997.38	3,966,474	3,966,474

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
Industrial Park	16.60	8.40	6.90	59.00	28.00	13.00	79	19	2
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Industrial Park	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352
Other Non-Asphalt Surfaces	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Parking Lot	0.542464	0.063735	0.188241	0.126899	0.023249	0.006239	0.010717	0.008079	0.000923	0.000604	0.024795	0.000702	0.003352

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	507.0245	507.0245	0.0428	5.1900e-003	509.6402
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	507.0245	507.0245	0.0428	5.1900e-003	509.6402
NaturalGas Mitigated	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	268.9633	268.9633	5.1600e-003	4.9300e-003	270.5616
NaturalGas Unmitigated	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	268.9633	268.9633	5.1600e-003	4.9300e-003	270.5616

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	5.04018e+006	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	268.9633	268.9633	5.1600e-003	4.9300e-003	270.5616
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0272**	**0.2471**	**0.2075**	**1.4800e-003**		**0.0188**	**0.0188**		**0.0188**	**0.0188**	**0.0000**	**268.9633**	**268.9633**	**5.1600e-003**	**4.9300e-003**	**270.5616**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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					
Industrial Park	5.04018e+006	0.0272	0.2471	0.2075	1.4800e-003		0.0188	0.0188		0.0188	0.0188	0.0000	268.9633	268.9633	5.1600e-003	4.9300e-003	270.5616
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
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0272**	**0.2471**	**0.2075**	**1.4800e-003**		**0.0188**	**0.0188**		**0.0188**	**0.0188**	**0.0000**	**268.9633**	**268.9633**	**5.1600e-003**	**4.9300e-003**	**270.5616**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	2.85896e+006	507.0245	0.0428	5.1900e-003	509.6402
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**507.0245**	**0.0428**	**5.1900e-003**	**509.6402**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Industrial Park	2.85896e+006	507.0245	0.0428	5.1900e-003	509.6402
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**507.0245**	**0.0428**	**5.1900e-003**	**509.6402**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive 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	1.2075	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189
Unmitigated	1.2075	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189

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	0.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0695					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.4000e-004	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189
Total	**1.2075**	**8.0000e-005**	**9.1000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0177**	**0.0177**	**5.0000e-005**	**0.0000**	**0.0189**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0695					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.4000e-004	8.0000e-005	9.1000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0177	0.0177	5.0000e-005	0.0000	0.0189
Total	**1.2075**	**8.0000e-005**	**9.1000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0177**	**0.0177**	**5.0000e-005**	**0.0000**	**0.0189**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	179.7576	2.2435	0.0543	252.0187
Unmitigated	179.7576	2.2435	0.0543	252.0187

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	68.4407 / 0	179.7576	2.2435	0.0543	252.0187
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**179.7576**	**2.2435**	**0.0543**	**252.0187**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Industrial Park	68.4407 / 0	179.7576	2.2435	0.0543	252.0187
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**179.7576**	**2.2435**	**0.0543**	**252.0187**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	74.4957	4.4026	0.0000	184.5598
Unmitigated	74.4957	4.4026	0.0000	184.5598

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	366.99	74.4957	4.4026	0.0000	184.5598
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**74.4957**	**4.4026**	**0.0000**	**184.5598**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Industrial Park	366.99	74.4957	4.4026	0.0000	184.5598
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**74.4957**	**4.4026**	**0.0000**	**184.5598**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

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

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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 100 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.

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

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

Dr. Rosenfeld has over 25 years of 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 oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. 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 also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

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, creosote, 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 sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military 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:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

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

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

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.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

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.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

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.

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., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

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.

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Revised EIR Technical Appendix B

Air Quality, Greenhouse Gas, Health Risk Assessment and Energy Impact Analysis

WHITTIER BOULEVARD BUSINESS PARK
AIR QUALITY, GLOBAL CLIMATE CHANGE, HRA, AND ENERGY IMPACT ANALYSIS

City of Whittier
February 11, 2022
Revised June 27, 2023

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

WHITTIER BOULEVARD BUSINESS PARK AIR QUALITY, GLOBAL CLIMATE CHANGE, HRA, AND ENERGY IMPACT ANALYSIS

City of Whittier
February 11, 2022
Revised June 27, 2023

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Project No. 19391

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EXECUTIVE SUMMARY

The purpose of this air quality, global climate change, health risk assessment, and energy impact analysis is to provide an assessment of the impacts resulting from development of the proposed Whittier Boulevard Business Park project and to identify measures that may be necessary to reduce potentially significant impacts.

Construction-Source Emissions

Project construction-source emissions would not exceed applicable regional thresholds of significance established by the South Coast Air Quality Management District (SCAQMD). For localized emissions, the project will not exceed applicable Localized Significance Thresholds (LSTs) established by the SCAQMD.

Project construction-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Given the temporary and short-term construction schedule, the project would not result in a long-term (i.e., lifetime or 30-year) exposure to TACs as a result of project construction. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, impacts from TACs during construction would be less than significant.

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less than significant.

Operational-Source Emissions

Project operational-sourced emissions would not exceed applicable regional thresholds of significance established by the SCAQMD. Project operational-source emissions would not result in or cause a significant localized air quality or toxic air contaminant (TAC) impacts as discussed in the Operations-Related Local Air Quality Impacts section of this report. Additionally, project-related trips will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO “hotspots). The Diesel Emissions Health Risk Assessment conducted for this project showed that DPM emissions from project-related truck trips will not cause a significantly elevated cancer risk or significant non-cancer-related health risk to nearby receptors. Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

Project operational-source emissions would not conflict with the Basin Air Quality Management Plan (AQMP). The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less than significant.

Greenhouse Gases

Project-related GHG emissions would not exceed the SCAQMD screening threshold of 10,000 MTCO2e per year for industrial uses.

Furthermore, the project's GHG emissions would not exceed the SCAQMD screening threshold (based on EO S-3-05). The project would not conflict with the goals of AB-32, SB-32, or the CARB Scoping Plan; therefore, the project would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and impacts are considered to be less than significant.

Energy

For new development such as that proposed by the Whittier Boulevard Business Park project, compliance with California Building Standards Code Title 24 energy efficiency requirements (CALGreen), are considered demonstrable evidence of efficient use of energy. As discussed below, the project would provide for, and promote, energy efficiencies required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the project's operation is calculated to be comparable to, or less than, energy consumed by other industrial uses of similar scale and intensity that are constructed and operating in California. On this basis, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Impacts are considered to be less than significant.

1. INTRODUCTION

This section describes the purpose of this air quality, global climate change, health risk assessment, and energy impact analysis, project location, proposed development, and study area. Figure 1 shows the project location map and Figure 2 illustrates the project site plan.

PURPOSE AND OBJECTIVES

This study was performed to address the possibility of regional/local air quality impacts and global climate change impacts, from project related air emissions. The objectives of the study include:

- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- discussion of the health risk impacts
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- analysis of the project's energy use during construction and operation
- recommendations for mitigation measures

The City of Whittier is the lead agency for this air quality and greenhouse gas analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

PROJECT LOCATION

The 13.49-acre project site is located at 12352 Whittier Boulevard in the City of Whittier, California. The project site is currently developed with a 213,430 square foot industrial building formerly used for manufacturing. The existing industrial building is no longer in operation. A vicinity map showing the project location is provided on Figure 1.

PROJECT DESCRIPTION

The proposed project involves demolition of the existing building and construction of a new building for industrial and warehousing uses totaling 295,959 square feet of floor area ["the project"].[1] Vehicular access is proposed at the Whittier Boulevard frontage road via two project driveways. The north project driveway will be for automobiles only and the south project driveway will service both automobiles and trucks. For purposes of this analysis, the proposed Project is anticipated to be constructed and fully operational by year 2024. Figure 2 illustrates the proposed site plan.

PHASING AND TIMING

The proposed project is anticipated to be operational in 2024. The project is anticipated to be built in one phase with project construction expected to start no sooner than the beginning of December 2023 and being completed mid-December 2024. Even if construction was to occur any time after the respective dates, the

[1] The project was originally analyzed in February 2022 as a 294,800 SF warehouse; however, as the size of the project has increased, the operational year changed, and the number of trucks accessing the site also increased, the air quality modeling and report have been revised.

analysis represents "worst-case" since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[2]

Sensitive Receptors in Project Vicinity

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (South Coast Air Quality Management District 2008). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

The nearest sensitive receptors to the project site include the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site.

[2] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2020.4.0, Section 4.3.2 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Figure 1
Project Location Map

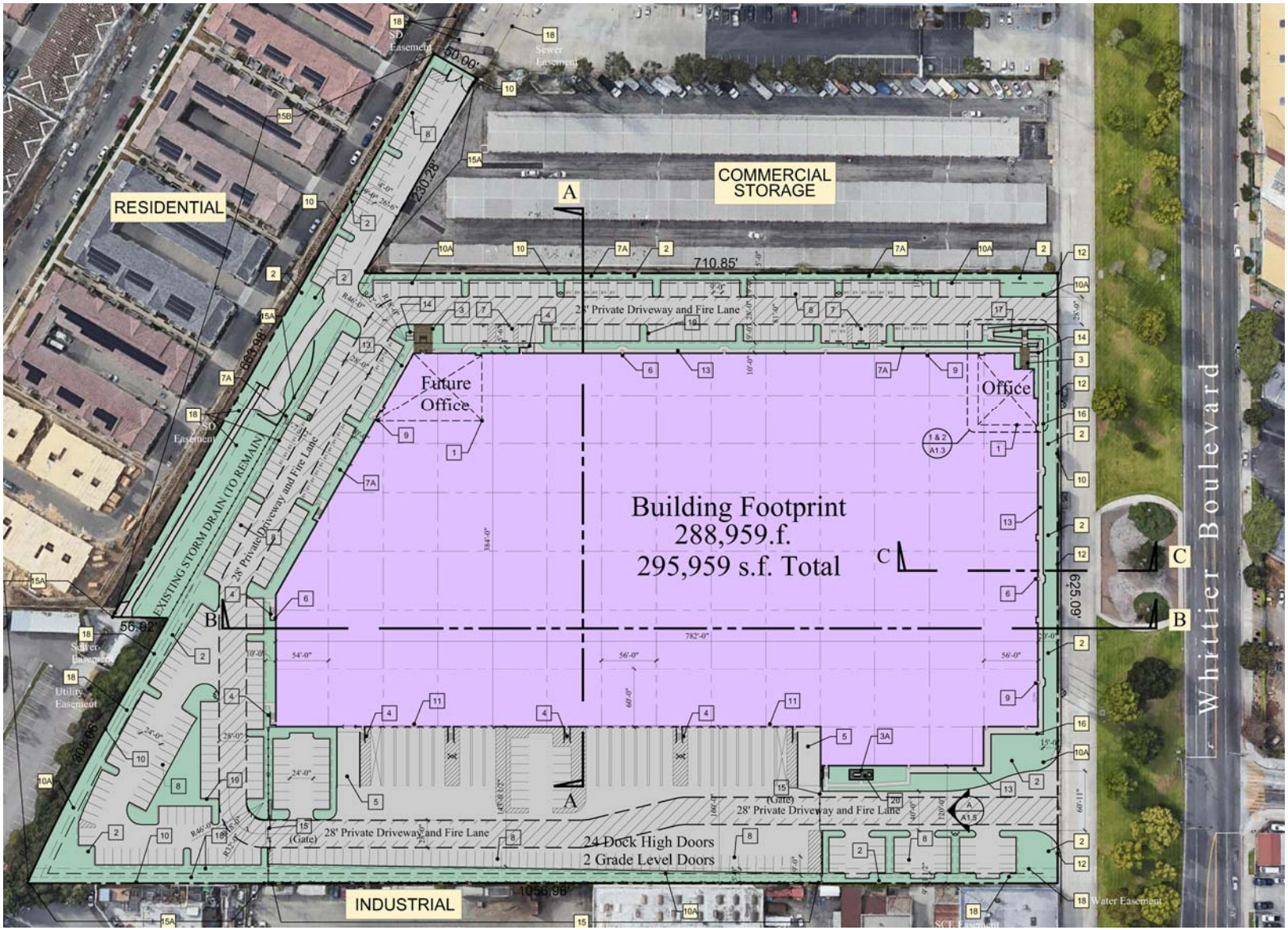


Figure 2
Site Plan

2. AIR QUALITY ANALYSIS

EXISTING AIR QUALITY CONDITIONS

Local Air Quality

The project site is located within the City of Whittier, in the southern portion of Los Angeles County, which is part of the South Coast Air Basin (SCAB) that includes all of Orange County as well as the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the South Coast Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

The annual average temperature varies little throughout much of the basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas where the project site is located. The majority of the annual rainfall in the basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in the coastal regions and slightly heavier showers in the eastern portion of the basin along the coastal side of the mountains. Year-to-year patterns in rainfall are unpredictable because of fluctuations in the weather.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin are radiation inversions, which form on clear winter nights when cold air off mountains sink to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions that affect the basin include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthful air. Strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the City of Montebello, closest monitoring station with data to the project site, are shown below in Table 1. Table 1 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 1
Local Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	70.3	71.1	73.6	77.5	79.9	83.5	88.6	89.9	88	82.7	73.1	70.9
Avg. Min. Temperature	47.4	48.7	50.5	53.3	57.3	60.6	64.1	64.9	63.2	58.2	50	47.3
Avg. Total Precipitation (in.)	3.48	3.33	2.6	0.88	0.26	0.05	0	0.03	0.17	0.36	1.24	2.32

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5790
Data from the Montebello, CA station (045790).

Pollutants

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants.

Nitrogen Dioxides

Nitrogen Oxides (NOx) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NOx and the pollutants formed from NOx can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone (O_3) is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NOx and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high

traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Dioxide

Sulfur Oxide (SOx) gases (including sulfur dioxide [SO2]) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SOx dissolve easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead (Pb) is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Reactive Organic Gases (ROG)

Although not a criteria pollutant, reactive organic gases (ROGs), or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2013 California Almanac of Emissions and Air Quality, the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot". Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located as Asbestos Mountain in the San Jacinto Valley; approximately 94.4 miles southeast of the site. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

REGULATORY SETTING

The proposed project is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through

legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The National Ambient Air Quality Standards (NAAQS) pollutants were identified using medical evidence and are shown below in Table 2.

The EPA and the California Air Resource Board (CARB) designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard. Attainment status is shown in Table 3.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The State Implementation Plan (SIP) must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the State Implementation Plan (SIP).

As indicated below in Table 3, the Basin has been designated by the EPA as a non-attainment area for ozone (O_3) and suspended particulates (PM10 and PM2.5). Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), suspended particulate matter (PM-2.5), and nitrogen dioxide (NO_2).

State – California Air Resources Board

The California Air Resources Board (CARB), which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). The California Ambient Air Quality Standards (CAAQS) for criteria pollutants are shown in Table 2. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. Furthermore, the motor vehicle emission standards established by CARB include compliance with the Safer Affordable Fuel-Efficient Vehicles (SAFE) Rule, issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020). The SAFE Rule sets fuel economy and carbon dioxide standards that increase 1.5 percent in stringency each year from model years 2021 through 2026, and apply to both passenger cars and light trucks. CARB. It also sets fuel specifications to further reduce vehicular emissions.

The South Coast Air Basin has been designated by the CARB as a nonattainment area for ozone, PM10 and PM2.5. Currently, the South Coast Air Basin is in attainment with the ambient air quality standards for CO, lead, SO2, NO2, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m3 and established an annual average standard for PM2.5 of 12 µg/m3. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and PM2.5 Standards. The plan projected attainment for the 8-hour Ozone standard by 2024 and the PM2.5 standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, Title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the South Coast Air Basin. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

AB 617 Nonvehicular air pollution: criteria air pollutants and toxic air contaminants

This bill requires the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and toxic air contaminants for use by certain categories of stationary sources. The bill requires those stationary sources to report their annual emissions of criteria air pollutants and toxic air contaminants, as specified. This bill required the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems, as defined. The bill requires the state board to select, based on the monitoring plan, the highest priority locations in the state for the deployment of community air monitoring systems. The bill requires an air district containing a selected location, by July 1, 2019, to deploy a system in the selected location. The bill would authorize the air district to require a stationary source that emits air pollutants in, or that materially affect, the selected location to deploy a fence-line monitoring system, as defined, or other specified real-time, on-site monitoring. The bill authorizes the state board, by January 1, 2020, and annually thereafter, to select additional locations for the deployment of the systems. The bill would require air districts that have deployed a system to provide to the state board air quality data produced by the system. By increasing the duties of air districts, this bill would impose a state-mandated local program. The bill requires the state board to publish the data on its Internet Web site.

Regional

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs.

Air Quality Management Plan

In May 2022, the SCAQMD completed the 2022 Draft AQMP. The 2022 Draft AQMP is focused on attaining the 2015 8-hour ozone standard (70 ppb) for the South Coast Air Basin and Coachella Valley. The Draft 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP was adopted December 2, 2022, by SCAQMD Governing Board. The 2022 AQMP was approved and adopted by CARB on January 26, 2023. The 2022 AQMP strategy includes the following:[3]

- Wide adoption of zero emissions technologies anywhere available.
- Low NOx technologies where zero emissions isn't feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.
- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

On June 30, 2016, the SCAQMD released its Draft 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the ozone standard deadlines. On March 23, 2017 the CARB approved the 2016 AQMP. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. The Plan was approved by the U.S. EPA on June 15, 2017.

SCAQMD Rules and Regulations

During construction and operation, the project must comply with applicable rules and regulations. The following are rules that the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402

Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403

Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles

[3] SCAQMD 2022 AQMP Infographic. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2022-aqmp-infographic

per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.
- Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Bumper strips or similar best management practices shall be provided where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Replanting disturbed areas as soon as practical.
- During all construction activities, construction contractors shall sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares, to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 445

Prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481

Applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
(2) Coatings are applied with high-volume low-pressure, electrostatic and/or airless spray equipment.
(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108

Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113

Governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143

Governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186

Limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303

Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.

SCAQMD Rule 1401

New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.

SCAQMD Rule 1403

Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM).

SCAQMD Rule 2202

On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

SCAQMD Rule 2305

The Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program aims to reduce nitrogen oxide and diesel emissions associated with warehouses, help meet federal standards and improve public health. The WAIRE Program is an indirect source rule that regulates warehouse facilities to reduce emissions from the goods movement industry. Owners and operators of warehouses that have 100,000 square feet or more of indoor floor space in a single building must comply with the WAIRE Program. WAIRE is a menu-based point system in which warehouse operators are required to earn a specific number of points every year. The yearly number of points required is based on the number of trucks trips made to and from the warehouse each year, with larger trucks such as tractors or tractor-trailers multiplied by 2.5. Warehouse operators may be exempt from parts of the rule if they operate less than 50,000 square feet of warehousing activities, if the number of points required is less than 10, or if the WAIRE menu action chosen under performs due to circumstances beyond the operator's control, such as a manufacturer defect. SCAQMD Rule 316 establishes fees to fund Rule 2305 compliance activities.

Air Quality Guidance Documents

SCAQMD CEQA Handbook

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook) prepared by the SCAQMD (1993) with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993. The 1993 CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the 1993 Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new Handbook is being prepared, supplemental information regarding: significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the SCAQMD website[4]. The SCAQMD CEQA Handbook and supplemental information is used in this analysis.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated MPO for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan (RTIP), which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

[4] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 FTIP Consistency Amendment through Amendment 15-12 have been met.

On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council will consider approval of Connect SoCal in its entirety and for all other purposes within 120 days from May 7, 2020. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Local – City of Whittier

Local jurisdictions, such as the City of Whittier, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2022 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Air Quality Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The Resource Management Element of the Envision Whittier General Plan includes the following applicable air-quality related goals and policies:

Goal 4 Increased vegetation and open space on both public and private property to improve air quality, reduce stormwater runoff, and mitigate urban heat island effects.

Goal 5 Urban environments that guard against adverse air quality impacts on sensitive receptors.

RM-5.1: Comply with SCAQMD regulations and minimize adverse health impacts between facilities known to emit harmful contaminants, such as industrial uses and high traffic areas, and sensitive receptors such as schools, childcare facilities, and senior centers.

RM-5.2: Pursue projects that improve public health and leverage funding available to disadvantaged communities.

In addition, the Public Safety, Noise and Health Element of the Envision Whittier General Plan includes the following goals and policies related to air quality:

Goal 9 Residential neighborhoods no burdened by pollution exposure and where all residents have equal access to community services and amenities, healthy foods, well-maintained homes, and recreational facilities and programming that support health lifestyles.

PSNH-9.1: Review the operating characteristics of proposed new industrial businesses near disadvantaged communities to minimize impacts on the population, especially children and the senior community. Encourage any existing sources of emissions to use feasible measures to minimize emissions that could impact air quality.

PSNH-9.3: Encourage building design, construction safeguards, and technological improvements that mitigate the negative impacts of hazardous materials and/or air pollution on indoor air quality and residential and sensitive uses sited near businesses that handle toxic materials.

PSNH-9.4: Designate acceptable and unacceptable areas for freight trucking and truck idling to limit impacts to all residents and disadvantaged communities in particular.

PSNH-9.5: Use landscaping and other buffers to separate sensitive uses from trucking uses, warehousing, manufacturing facilities, and other emissions sources.

PSNH-9.6: Encourage non-polluting industry and clean green technology companies to locate in the City.

Table 2
State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.070 ppm/8-hour	(a) Decline in pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3/24-hour 20 µg/m^3/annual	150 µg/m^3/24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3/24-hour 12 µg/m^3/annual	
Sulfates	25 µg/m^3/24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m^3/30-day	0.15 µg/m^3/3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf

Table 3
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Unclassifable/Attainment
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM10	Nonattainment	Attainment (Maintenance)
PM2.5	Nonattainment	Nonattainment (Serious)

Source (Federal and State Status): California Air Resources Board (2022) https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations & SCAQMD 2022 Air Quality Management Plan (December 2022) http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

MONITORED AIR QUALITY

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2022 Air Quality Management Plan prepared by SCAQMD (December 2022) indicate that collectively, mobile sources account for 46 percent of the VOC, 85 percent of the NOx emissions, 89 percent of the CO emissions and 29 percent of directly emitted PM2.5, with another 18 percent of PM2.5 from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the Southeast LA County Air Monitoring Area (Area 5), which is located in Los Angeles County and covers from the Whittier Boulevard on the north, the County of Orange and County of Los Angeles County line on the east, the 91 Freeway on the south, and the 710 Freeway on the west. The nearest air monitoring station to the project site is the Pico Rivera – 4144 San Gabriel Monitoring Station (Pico Rivera Station). The Pico Rivera Station is located approximately 2.79 miles northwest of the project site at 4144 San Gabriel River Parkway, Pico Rivera. As not all monitoring stations monitor all pollutants, data was also taken from the Los Angeles – North Main Street Monitoring Station (Los Angeles Station) located approximately 12.1 miles northwest of the project site at 1630 N Main Street, Los Angeles was also utilized. However, it should be noted that due to the air monitoring stations distances from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site. Table 4 presents the monitored pollutant levels from the Pico Rivera and Los Angeles Stations.

Table 4 summarizes 2019 through 2021 published monitoring data, which is the most recent 3-year period available. The data shows that during the past few years, the project area has exceeded the ozone and particulate matter (PM10 and PM2.5) standards.

Ozone

During the 2019 to 2021 monitoring period, the State 1-hour concentration standard for ozone was exceeded between two and 20 days each year at the Pico Rivera Station. The State 8-hour ozone standard has been exceeded between three and 25 days each year over the past three years at the Pico Rivera Station. The Federal 8-hour ozone standard was exceeded between three and 23 days each year over the past three years at the Pico Rivera Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Los Angeles Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

Nitrogen Dioxide

The Pico Rivera Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Particulate Matter

The State 24-hour concentration standards for PM10 were exceeded between 14 and 34 days each year over the last three years at the Los Angeles Station. Over the past three years, the Los Angeles Station did not record an exceedance of the Federal 24-hour standards for PM10.

Over the last three years the Federal 24-hour standard for PM2.5 was exceeded between one and five days each year at the Pico Rivera Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths during exercise.

Table 4
Air Quality Monitoring Summary

Pollutant (Standard)[1]		Year		
		2019	2020	2021
Ozone:	Maximum 1-Hour Concentration (ppm)	0.108	0.169	0.104
	Days > CAAQS (0.09 ppm)	5	20	2
	Maximum 8-Hour Concentration (ppm)	0.092	0.114	0.074
	Days > NAAQS (0.070 ppm)	7	23	3
	Days > CAAQS (0.070 ppm)	8	25	3
Carbon Monoxide:[2]	Maximum 8-Hour Concentration (ppm)	*	*	*
	Days > CAAQS (9 ppm)	0	0	0
	Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide:	Maximum 1-Hour Concentration (ppm)	0.062	0.069	0.072
	Days > CAAQS (0.18 ppm)	0	0	0
Inhalable Particulates (PM10):[2]	Maximum 24-Hour Concentration (µg/m^3)	93.9	185.2	138.5
	Days > NAAQS (150 µg/m3)	0	0	0
	Days > CAAQS (50 µg/m3)	15	34	14
	Annual Average (µg/m3)	23.0	33.9	30.9
Ultra-Fine Particulates (PM2.5):	Maximum 24-Hour Concentration (µg/m3)	56.3	82.9	66.1
	Days > NAAQS (35 µg/m3)	1	5	3
	Annual Average (µg/m3)	9.9	14	13.3

Notes:

Source: http://www.arb.ca.gov/adam/topfour/topfour1.php. Data from the Pico Rivera - 4144 San Gabriel Monitoring Station, unless otherwise noted.

(1) CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million

* Means there was insufficient data available to determine value.

(2) Data taken from the Los Angeles - North Main Street Monitoring Station.

AIR QUALITY STANDARDS

Significance Thresholds

Appendix G of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination. Pursuant to Appendix G, the project would result in a significant impact related to air quality if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The CEQA Guidelines Section 15064.7 provides the significance criteria established by the applicable air quality management district or air pollution control district, when available, may be relied upon to make determinations of significance. The potential air quality impacts of the project are, therefore, evaluated according to thresholds developed by SCAQMD in their CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance, which are listed below.[5] Therefore, the project would result in a potentially significant impact to air quality if it would:

AIR-1: Conflict with or obstruct the implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation as a result of:

- Criteria pollutant emissions during construction (direct and indirect) in excess of the SCAQMD's regional significance thresholds,
- Criteria pollutant emissions during operation (direct and indirect) in excess of the SCAQMD's regional significance thresholds.

AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations that would:

- Exceed SCAQMD's localized significance thresholds,
- Cause or contribute to the formation of CO hotspots.

AIR-5: Create objectionable odors affecting a substantial number of people.

The SCAQMD is in the process of developing an Air Quality Analysis Guidance Handbook to replace the CEQA Air Quality Handbook. In the interim, supplemental guidance has been adopted by the SCAQMD. The

[5] While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from industrial land use projects such as the Project. As a result, lead emissions are not further evaluated herein.

potential air quality impacts of the project are, therefore, evaluated according to numeric indicators developed by the SCAQMD in the CEQA Air Quality Handbook and supplemental guidance from the SCAQMD.[6]

Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 5.

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significance Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significance Threshold Methodology (LST Methodology), June 2003, which details the methodology to analyze local air emission impacts. The Localized Significance Threshold Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The significance thresholds for the local emissions of NO_2 and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 4 above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significance Thresholds. Table 5 shows the ambient air quality standards for NO_2, CO, and PM10 and PM2.5.

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to hazardous air pollutants (HAP), the Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, (Diesel Analysis), prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create hazardous air pollutants through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the hazardous air pollutants and the toxicity of the hazardous air pollutants should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

[6] While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from residential land use projects such as the Project. As a result, lead emissions are not further evaluated herein.

The potential for health risks due to project-related diesel particulate matter (DPM) emissions is examined in Section 3 of this report.

Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

Table 5
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds[1]		
Pollutant	Construction (lbs/day)	Operation (lbs/day)
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants (TACs), Odor and GHG Thresholds		
TACs (including carginogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO2e for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants[2]		
NO2 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) & 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 µg/m^3 (construction)[3] & 2.5 ug/m^3 (operation) 1.0 ug/m^3	
PM2.5 24-hour average	10.4 µg/m^3 (construction)[3] & 2.5 µg/m^3 (operation)	
SO2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m^3 (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) & 35 ppm (federal) 9 ppm (state/federal)	
Lead 30-day average Rolling 3-month average	1.5 µg/m^3 (state) 0.15 µg/m^3 (federal)	

Notes:

Source: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

(1) Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

(2) Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

(3) Ambient air quality threshold based on South Coast AQMD Rule 403.

SHORT-TERM CONSTRUCTION EMISSIONS

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed project are anticipated to include: demolition of a 213,430 square foot existing industrial building and approximately 305,150 square feet of existing paving; site preparation to remove existing landscaping/parking areas; grading of approximately 13.49 acres; construction of a 295,959 square foot industrial building with a 288,959 square foot footprint and 78,889 square feet of landscaping; paving of a parking lot with 417 parking spaces; and application of architectural coatings. Grading of the site will balance. See Appendix B for more details.

The proposed project is anticipated to start construction no sooner than the beginning of December 2023 and being completed by mid-December 2024. The project is anticipated to be operational in 2024.

Methodology

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the proposed project's short-term construction emissions for the criteria pollutants. The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

Emissions are estimated using the CalEEMod (Version 2022.1.1.13) software, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California and is recommended by the SCAQMD.[7]

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The input values used in this analysis were adjusted to be project-specific for the construction schedule and the equipment used was based on CalEEMod defaults. The CalEEMod program uses the EMFAC2021 computer program to calculate the emission rates specific for the southwestern portion of Riverside County for construction-related employee vehicle trips and the OFFROAD2017 computer program to calculate emission rates for heavy truck operations. EMFAC2021 and OFFROAD2017 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Daily truck trips and CalEEMod default trip length data were used to assess roadway emissions from truck exhaust. The maximum daily emissions are estimated values for the worst-case day and do not represent the emissions that would occur for every day of project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators. Detailed construction equipment lists, construction scheduling, and emission calculations are provided in Appendix B.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move

[7] South Coast Air Quality Management District, California Emissions Estimator Model, http://www.aqmd.gov/caleemod/.

5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 13.49 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 has been included in the CalEEMod modeling for the proposed project.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied after January 1, 2014 will be limited to an average of 50 grams per liter or less of VOCs for building coatings and 100 grams per liter or less of VOCs for traffic coatings.

The phases of the construction activities which have been analyzed below for each phase are: (1) demolition, (2) site preparation, (3) grading, (4) building construction, (5) paving, and (6) application of architectural coatings. Details pertaining to the project's construction timing and the type of equipment modeled for each construction phase are available in the CalEEMod output in Appendix B.

Construction-Related Regional Impacts

The maximum summer or winter criteria pollutant emissions from the proposed project's construction-related criteria pollutant emissions are shown below in Table 6. Table 6 shows that none of the project's emissions will exceed regional thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

Local Air Quality Impacts from Construction

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold lookup tables, the CEQA document should contain the following parameters:

(1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
(2) The maximum number of acres disturbed on the peak day.
(3) Any emission control devices added onto off-road equipment.
(4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output in Appendix B show the equipment used for this analysis.

As shown in Table 7, the maximum number of acres disturbed in a day would be 4 acres during grading. The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold

Methodology prepared by SCAQMD (revised July 2008). The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the Southeast LA County source receptor area (SRA) 5 and a disturbance value of four acres per day.[8] According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. The nearest sensitive receptors to the project site are the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site; therefore, the SCAQMD Look-up Tables for 25 meters were used. Table 8 shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds.

The data provided in Table 8 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Construction-Related Health Impacts

Regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during construction of the project would be below the applicable thresholds, it would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of project construction are not anticipated.

Construction-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to the Office of Environmental Health Hazard Assessment (OEHHA)[9] and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),[10] health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 12.5 months), the project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds.

The project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Therefore, impacts from TACs during construction would be less than significant.

[8] The 4-acre threshold was interpolated from the 2-acre and 5-acre SCAQMD Mass Rate Look-up Table thresholds at 25 meters.

[9] Office of Environmental Health Hazard Assessment, Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment, February 2015, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[10] South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003,http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

Table 6
Construction-Related Regional Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO_2	PM10	PM2.5
Maximum Daily Emissions[1,2]	33.10	38.40	37.60	0.09	9.88	4.15
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
Source: CalEEMod Version 2022.1.1.13
(1) On-site demolition, site preparation, and grading PM-10 and PM-2.5 emissions show compliance with SCAQMD Rule 403 for fugitive dust.
(2) Construction, painting and paving phases may overlap.

Table 7
Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Demolition	Rubber Tired Dozers	2	0.5	1
Total for phase		-	-	1
Site Preparation	Rubber Tired Dozers	3	0.5	1.5
	Crawler Tractors[1]	4	0.5	2
Total for phase		-	-	3.5
Grading	Rubber Tired Dozers	1	0.5	0.5
	Graders	1	0.5	0.5
	Scrapers	2	1	2
	Crawler Tractors[1]	2	0.5	1
Total for phase		-	-	4

Notes:
Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2011b.
(1) Tractor/loader/backhoe is a suitable surrogate for a crawler tractor per SCAQMD staff.

Table 8
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition	27.30	23.50	7.41	2.04
Site Preparation	36.00	32.90	6.71	4.10
Grading	34.30	30.20	3.84	2.28
Building Construction	11.20	13.10	0.50	0.46
Paving	7.81	10.00	0.39	0.36
Architectural Coating	0.91	1.15	0.03	0.03
SCAQMD Thresholds[1,2]	153	1,274	12	6
Exceeds Threshold?	No	No	No	No

Notes:

Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 4-acres at a distance of 25 m in SRA 5 Southeast LA County.

(1) The nearest sensitive receptors are the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site; therefore, the 25 meter threshold was used.

(2) The 4-acre threshold was interpolated from the 2-acre and 5-acre SCAQMD Mass Rate Look-up Table thresholds at 25 meters. Note: The project will disturb up to a maximum of 4 acres a day during grading (see Table 7).

LONG-TERM OPERATIONAL EMISSIONS

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips and through operational emissions from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to: regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Air Quality Impacts

The potential operations-related air emissions have been analyzed below for the criteria pollutants and cumulative impacts.

Operations-Related Criteria Pollutants Analysis

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of the CalEEMod model. The operating emissions were based on the year 2024, which is the anticipated opening year for the proposed project. The operations daily emissions printouts from the CalEEMod model are provided in Appendix B. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips (trip generation rate) from the *12352 Whittier Boulevard Industrial Project Trip Generation Memorandum* (Trip Generation Memo) prepared by Ganddini Group, Inc. (June 13, 2023) into the CalEEMod Model. The Trip Generation Memo found that the proposed project would create approximately 998 vehicle trips per day (non-PCE) and 1,305 vehicle trips per day (PCE) with a trip generation rate of 3.37 trips per thousand square foot per day. The program then applies the emission factors for each trip which is provided by the EMFAC2021 model to determine the vehicular traffic pollutant emissions.

The Trip Generation Memo found that the proposed industrial use would create 829 automobile round trips, 13 2-axle truck round trips, 12 3-axle truck round trips, and 144 4+-axle truck round trips per day (non-PCE). The vehicle mix for the industrial project was changed in CalEEMod to match the Trip Generation Memo (see Table 9) and the percentages in CalEEMod were changed to 83.1% autos (H-W) and 16.9% trucks (W-O) to match the overall vehicle percentages given in the TIA. Due to the proposed project's location and proposed industrial land use, the average customer based trip length was increased to 40 miles per SCAQMD recommendation, while all other trip lengths were based on the urban default values.

Area Sources

Per the CAPCOA Appendix A Calculation Details for CalEEMod, area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

Project Impacts

The maximum daily pollutant emissions created from the proposed project's long-term operations have been calculated and are shown below in Table 10. The results show that none of the SCAQMD regional thresholds would be exceeded. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis analyzes the vehicular CO emissions, local impacts from on-site operations per SCAQMD LST methodology, and odor impacts.

Local CO Emission Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented above.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the Level of Service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour.

The Trip Generation Memo showed that the proposed project would generate a maximum of approximately 998 daily vehicle trips. The original *Whittier Boulevard Business Park Traffic Impact Analysis* ("TIA") prepared by Ganddini Group, Inc. (January 24, 2022) showed that the intersection with the highest traffic volume is located at Whittier Boulevard and Whittier Boulevard Frontage Road and has an Existing Plus Ambient Growth Plus Project Plus Cumulative - Alternative with Mar Vista Street Extension AM peak hour volume of 1,428 vehicles. Furthermore, as shown in the more recent Trip Generation Memo, the project now has fewer peak hour trips per day than what was analyzed in the TIA. The 1992 Federal Attainment Plan for Carbon Monoxide (1992

CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. Therefore, as the intersection volume falls far short of 100,000 vehicles per day, no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptors that may be impacted by the proposed project are the existing multi- and single-family residential uses adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site.

The local air quality emissions from on-site operations were analyzed according to the methodology described in Localized Significance Threshold Methodology, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Per SCAQMD staff, the 5-acre Look-up Table, which is the largest site available, can be used as a conservative screening analysis for on-site operational emissions to determine whether more-detailed dispersion modeling would be necessary. The proposed project was analyzed based on the Southeast LA County source receptor area (SRA) 11 and as the site is only 13.49 acres, used the screening thresholds for a five-acre project site.

Table 11 shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to approximately 10 percent of the project-related new mobile sources.[11] The data provided in Table 11 shows that the on-going operations of the proposed project would not exceed SCAQMD local operational thresholds of significance discussed above. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Health Impacts

Regarding health effects related to criteria pollutant emissions, the applicable significance thresholds are established for regional compliance with the state and federal ambient air quality standards, which are intended to protect public health from both acute and long-term health impacts, depending on the potential effects of the pollutant. Because regional and local emissions of criteria pollutants during operation of the project would be below the applicable thresholds, it would not contribute to long-term health impacts related to nonattainment of the ambient air quality standards. Therefore, significant adverse acute health impacts as a result of project operation are not anticipated.

Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

[11] The project site is approximately 0.23 miles in length at its longest point; therefore the on-site mobile source emissions represent approximately 1/32nd of the shortest CalEEMod default distance of 7.31 miles. Therefore, to be conservative, 1/10th the distance (dividing the mobile source emissions by 10) was used to represent the portion of the overall mobile source emissions that would occur on-site.

Table 9
CalEEMod Revised Vehicle Mix Parameters

CalEEMod Vehicle Type	Vehicle Mix from Traffic Analysis	CalEEMod Default Mix[1]		CalEEMod Revised Mix[2]	
		Ratio	Number of Vehicles	Ratio	Number of Vehicles
Light Auto	Automobile	0.512	511	0.451	450
Light Truck < 3750 lbs	Automobile	0.045	45	0.039	39
Light Truck 3751-5750 lbs	Automobile	0.228	227	0.201	200
Med Truck 5751-8500 lbs	Automobile	0.139	138	0.122	122
Lite-Heavy Truck 8501-10,000 lbs	2-Axle Truck	0.026	26	0.010	10
Lite-Heavy Truck 10,001-14,000 lbs	2-Axle Truck	0.006	6	0.003	3
Med-Heavy Truck 14,001-33,000 lbs	3-Axle Truck	0.011	11	0.012	12
Heavy-Heavy Truck 33,001-60,000 lbs	4+-Axle Truck	0.008	8	0.144	144
Other Bus	--	0.001	1	0.000	0
Urban Bus	--	0.001	1	0.000	0
Motorcycle	Automobile	0.021	21	0.018	18
School Bus	--	0.001	1	0.000	0
Motor Home	--	0.003	3	0.000	0
Total		**1.0**	**998**	**1.0**	**998**

Notes:

(1) Source: CalEEMod Version 2022.1.1.13 default values for Opening year of 2024.

(2) Revised per the vehicle mix provided in the 12352 Whittier Boulevard Industrial Project Trip Generation Memorandum (Ganddin Group, Inc., June 13, 2023) of 83.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks.

Table 10
Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	13.10	18.40	70.70	0.22	14.11	3.89
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
Source: CalEEMod Version 2022.1.1.13; the higher of either summer or winter emissions.

Table 11
Local Operational Emissions at the Nearest Receptors

	On-Site Pollutant Emissions (pounds/day)[1]			
On-Site Emission Source	NOx	CO	PM10	PM2.5
Area Sources[2]	0.11	12.90	0.02	0.02
Energy Usage[3]	2.01	1.69	0.15	0.15
Vehicle Emissions[4]	1.64	5.62	1.39	0.37
Total Emissions	3.76	20.21	1.56	0.54
SCAQMD Thresholds[5]	172	1,480	4	2
Exceeds Threshold?	No	No	No	No

Notes:

(1) Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 5 acres in SRA 5 Southeast LA County.

(2) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.

(3) Energy usage consists of emissions from on-site natural gas usage.

(4) On-site vehicular emissions based on 1/10 of the gross vehicular emissions and road dust.

(5) The nearest sensitive receptors are the existing multi- and single-family residential uses located adjacent to the west, the multi-family residential uses located approximately 335 feet (~102 meters) southeast, and the single-family residential uses located approximately 700 feet (~213 meters) northeast of the project site; therefore, the 25 meter threshold was used.

CUMULATIVE AIR QUALITY IMPACTS

There are a number of cumulative projects in the project area that have not yet been built or are currently under construction. Since the timing or sequencing of the cumulative projects is unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. Further, cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality;[12] and (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

Project Specific Impacts

The project area is out of attainment for ozone, PM10, and PM2.5. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants mainly from increased traffic volumes from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. This applies to TACs as well, as the SCAQMD does not have any cumulative TAC thresholds; therefore, projects that do not exceed the SCAQMD TAC threshold criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant.

Project operations would generate emissions of NOx, ROG, CO, PM10, and PM2.5, which, would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. The project will not be a source of significant TACs and will not cause significant cancer or non-cancer-related health risks. Since the project would not introduce any substantial stationary sources of emissions, CO is the benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. As indicated earlier, no violations of the state and federal CO standards are projected to occur for the project, based on the magnitude of traffic the project is anticipated to create.

Therefore, operation of the project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors. As a result, the project would result in a less than significant cumulative impact for operational emissions.

Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to

[12] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, 1993, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
(2) Whether the project will exceed the assumptions in the AQMP in 2022 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criteria 1 – Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that, long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criteria 2 – Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2020-2045 Regional Transportation/Sustainable Communities Strategy prepared by SCAG (2020) includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Whittier Land Use Plan defines the assumptions that are represented in the AQMP.

The project site is currently designated as General Industrial and zoned Whittier Boulevard Specific Plan in the City of Whittier General Plan. The project proposes to develop the site with 295,959 square feet of industrial use. Therefore, the proposed project is consistent with the City's land use designation. The proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

3. DIESEL EMISSIONS HEALTH RISK ASSESSMENT

The project would generate toxic air contaminant emissions from diesel truck emissions created by the on-going operations of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of revised Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology.

A health risk assessment requires the completion and interaction of four general steps:

(1) Quantify project-generated TAC emissions.
(2) Identify nearby ground-level receptor locations that may be affected by the emissions (including any special sensitive receptor locations such as residences, schools, hospitals, convalescent homes, and daycare centers).
(3) Perform air dispersion modeling analyses to estimate ambient pollutant concentrations at each receptor location using project TAC emissions and representative meteorological data to define the transport and dispersion of those emissions in the atmosphere.
(4) Characterize and compare the calculated health risks with the applicable health risk significance thresholds.

According to the SCAQMD's MATES-V study, has an estimated multi-pathway cancer risk of 467 in one million and an inhalation cancer risk of 435 in one million. In comparison the average multi-pathway cancer risk for the South Coast Air Basin portion of Los Angeles County is 497 in one million and the inhalation cancer risk is 462 in a million. This increased cancer risk is largely due to the proximity to the Interstate 605 Freeway.

EMISSIONS INVENTORY DEVELOPMENT

Important issues that affect the dispersion modeling include the following: (1) Model Selection, (2) Source Treatment, (3) Meteorological Data, and (4) Receptor Grid. Each of these issues is addressed below.

Emission Source Estimates – DPM for Motor Vehicles

DPM emissions from the various sources were calculated using information derived from the project description, and mobile source emission factors from the CARB EMFAC2021 emissions factor model (see Appendix C for details). Truck mix information was obtained from the *12352 Whittier Boulevard Industrial Project Trip Generation Memorandum* ("Trip Generation Memo") prepared by Ganddini Group, Inc. (June 13, 2023).

Four pieces of information are required to generate the mobile source emissions from the proposed project:

- Number of vehicle trips for each component of the proposed project;
- Types of vehicles that access the proposed project (passenger car vs. heavy-duty truck and gasoline vs. diesel);
- The allocation of the vehicle trips to each building that comprises the proposed project; and
- Estimate of the vehicle emission factors for estimating exhaust and idling emissions.

Estimate of Vehicle Trips and Vehicle Types

The Trip Generation Memo showed the project is expected to generate approximately 998 (non-passenger car equivalents) vehicle trips per day. Of those vehicle trips, 829 are automobile round trips, 13 are 2-axle truck round trips, 12 are 3-axle truck round trips, and 144 are 4+-axle truck round trips per day (non-passenger car equivalents).

Estimate of Emission Factors

The DPM emission factors for the various vehicle types were derived from the CARB EMFAC2021 mobile source emission model. The emissions factors were derived for Los Angeles County. Third trimester exposure used opening year (2024) emissions factors, 2-year factors (for infant exposure) reflect years 2025 and 2026, 14-year average factors (for child exposure during years 2-16) reflect emissions during the first 14 years of operation (2027 to 2040), the second 14 years of exposure (years 2041-2054) were used for assessment of exposure during years 16 to 30.

Emissions factors were estimated to establish the emissions generated while the vehicles travel off-site, along travel links from the entrance to the loading docks, and while idling at the loading dock during loading or unloading materials. All vehicles were assumed to travel on-site at a speed of 10 miles per hour. Off-site, the speeds along the roads were anticipated to average 35 miles per hour. Delivery vehicles were assumed to idle for a maximum of 15 minutes per vehicle per day (5 minutes per location: at the truck entrance and at the loading docks), in keeping with the CARB Air Toxic Control Measure (ATCM), which regulates truck idling time (CARB 2005). The four different sets of emissions factors used in this assessment are detailed in Table 12. It should be noted that the DPM emissions on both the gram per mile and gram per idle hour bases decline beyond 2024 for all vehicle classes and in particular the heavy-heavy-duty truck class (the 4+ axle "big rig" trucks). This is due to the CARB emissions' requirements on heavy-duty trucks that call for either the replacement of older trucks with cleaner trucks or the installation of diesel particulate matter filters on the truck fleet.

Emission Source Characterization

Each of the emission source types described above also requires geometrical and emission release specifications for use in the air dispersion model. An average truck height of 13.5 feet and average truck width of 8.5 feet were entered into the haul road calculator in AERMOD in order to calculate the plume height and release height for the line sources. Table 13 provides a summary of the assumptions used to configure the various emission sources. The following definitions are used to characterize the emission source geometrical configurations referred to in Table 13:

- Point source: A single, identifiable, local source of emissions; it is approximated in the AERMOD air dispersion model as a mathematical point in the modeling region with a location and emission characteristics such as height of release, temperature, etc., for example, a truck idle location where emissions are sourced from the truck's exhaust stack while the vehicle is stationary.

- Line source: A series of volume sources along a path, for example, vehicular traffic volumes along a roadway.

Figure 3 provides the location of the project buildings, emission source locations, and the locations of the nearest sensitive receptors that may be affected by on-site and off-site DPM emissions (including the existing multi- and single-family residential uses adjacent to the west, the multi-family residential uses located approximately 335 feet southeast, and residential uses under construction located approximately 1,660 feet northwest of the site, west of Whitter Boulevard). A receptor was also placed at the Whittier Greenway bike/pedestrian trail located east of Whittier Boulevard. Residential receptors are shown as orange triangles labeled 1 through 7 and 9, the receptor for the Whittier Greenway Trail is labeled bike trail_8. The direction of on-site and off-site truck travel were obtained from the site plan and the TIA.

RECEPTOR NETWORK

The assessment requires that a network of receptors be specified where the impacts can be computed at the various locations surrounding the project. Receptors were located at existing sensitive receptors surrounding the proposed project (as detailed above). In addition, the identified sensitive receptor locations were supplemented by the specification of a modeling grid that extended around the proposed project to identify other potential locations of impact. The locations of the receptors are shown as orange triangles on Figure 3.

DISPERSION MODELING

The next step in the assessment process utilizes the emissions inventory along with a mathematical air dispersion model and representative meteorological data to calculate impacts at the various receptor locations. The dispersion model used in this assessment is described below.

Model Selection

The assessment of air quality and health risk impacts from pollutant emissions from this project applied the USEPA AERMOD Model, which is the air dispersion model accepted by the SCAQMD for performing air quality impact analyses. AERMOD predicts pollutant concentrations from point, area, volume, line, and flare sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios. AERMOD View Version 11.2.0, EPA version No. 22112, was utilized for this analysis.

General Model Assumptions

A summary of Emission Configurations is shown in Table 13. The basic options used in the dispersion modeling are summarized in Table 14.

As indicated in Table 14 the analysis takes into account the effects of building downwash on the dispersion of emissions from the various sources located on the project's property. Building downwash occurs when the aerodynamic turbulence, induced by nearby buildings, causes pollutants emitted from an elevated source to be mixed rapidly toward the ground (downwash), resulting in potentially higher ground-level concentrations than if the buildings were not present. The AERMOD dispersion model contains algorithms to account for building downwash effects. The required information includes the location of the emission source; the location of adjacent buildings; and the building geometry in terms of length, width, and height. For purposes of this analysis, the emission source and building locations were taken from the project site plan. The proposed building geometries were estimated from the project plans, assuming a building height of 35 feet.

Meteorological Data

Meteorological data (processed with the ADJ_U option) from the Air District's Pico Rivera monitoring site was selected for this modeling application. Five full years of sequential meteorological data was collected at the site from January 1, 2010 to December 31, 2016 by the SCAQMD. The SCAQMD processed the data for input to the model. The data was obtained at SCAQMD's https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod (see Figure 4).

ESTIMATION OF HEALTH RISKS

Health risks from diesel particulate matter are twofold. First, diesel particulate matter is a carcinogen according to the State of California. Second, long-term chronic exposure to diesel particulate matter can cause health effects to the respiratory system. Each of these health risks is discussed below.

Cancer Risks

According to the *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, released by the Office of Environmental Health Hazard Assessment (OEHHA) in February 2015 and formally adopted in March 2015, the residential inhalation dose for cancer risk assessment should be calculated using the following formula:

[Dose-air (mg/(Kg-day)]*Cancer Potency*[1x10^{-6}] = Potential Cancer Risk

Where:
Cancer Potency Factor = 1.1
Dose-inh = (C¬air * DBR * A * EF * ED *ASF*FAH* 10^{-6}) / AT

Where:

Cair	[Concentration in air (µg/m^3)] = (Calculated by AERMOD Model)
DBR	[Daily breathing rate (L/kg body weight – day)] = 261 for adults, 572 for children, and 1,090 for infants, and 361 for 3rd trimester per SCAQMD Permit Application Package "N" Table 4.1 D guidance.
A	[Inhalation absorption factor] = 1
EF	[Exposure frequency (days/year)] = 350
ED	[Exposure duration (years)] = 30 for adults (for an individual who is an adult at opening year), 14 for children (from 2-16 years), 14 for adults (from 16-30 years), 2 for infants, and 1 for 3rd Trimester
ASF	[Age sensitivity factor) = 10 for 3rd trimester to 2 years of age, 3 for 2 to 16 years of age, and 1 for 16 to 30 years of age
FAH	[Fraction of time spent at home] = 1 for 3rd trimester to 2 years of age, 1 for 2 to 16 years of age, and 0.73 for 16 to 30 years of age
10^6	[Micrograms to milligrams conversion]
AT	[Average time period over which exposure is averaged in days] = 25,550

The model run results are shown in Appendix C. Figure 5 illustrates the cancer risk to the most affected age-group, infants (0-2 years). Table 15 shows the cancer risk for the unborn child during the 3rd trimester, Table 16 shows the cancer risk to infants (0-2 years), Table 17 shows the cancer risk to children ages 2 to 16 years and Table 18 shows the cancer risk as that child becomes an adult (years 16-30).

The highest cancer risk corresponds to infant cancer risk 0-2 years (see Table 16), and is at receptor bike trail_8, with a maximum risk of 0.38 in one million, followed by receptor 1 at 0.37 in a million. The maximum 3rd trimester (0.25-year) cancer risk is at receptors 1, 2, and bike trail_8; with a maximum cancer risk of 0.02 in a million. The highest child (2-16 years) cancer risk is at receptor 1; with a maximum risk of 0.36 in one million and the highest adult (16-30 years) cancer risk is at receptors 1, 2, 3 and bike trail_8; with a maximum risk of 0.04 in one million. Therefore, no children, infants, or adults are exposed to cancer risks in excess of 10 in a million.

The assessment of cumulative cancer-related health risk to sensitive receptors within the project vicinity is based on the following most-conservative scenario: an unborn child in its 3rd trimester is potentially exposed to DPM emissions (via exposure of the mother) during the opening year. That child is born opening year and then remains at home for the entire first two years of life. From age 2 to 16, the child remains at home 100 percent of the time. From age 16 to 30, the child continues to live at home, growing into an adult that spends 73 percent of its time at home and lives there until age 30.

Based on the above, ultra-conservative assumptions, the 30.25-year, cumulative carcinogenic health risk (3rd trimester [-0.25 to 0 years] + infant [0-2 years] + child [2-16 years] + adult [16-30 years]) to an individual born during the opening year of the project, and located in the project vicinity for the entire 30-year duration, is a maximum of 0.78 in a million at receptor location bike trail_8, followed by 0.77 in a million at receptor location 1, as shown in Table 19. Therefore, the on-going operations of the proposed project would result in

a less than significant impact due to the cancer risk from diesel emissions created by the proposed project. As the residential cancer risk does not exceed 10 in a million.

Non-Cancer Risks

The relationship for non-cancer health effects is given by the equation:

HIDPM = CDPM/RELDPM

Where,

HIDPM	=	Hazard Index; an expression of the potential for non-cancer health effects.
CDPM	=	Annual average diesel particulate matter concentration in µg/m3.
RELDPM	=	Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The non-carcinogenic hazards to adult, child and infant receptors are also detailed in Tables 15 through 18 column (j). The RELDPM is 5 µg/m3. The Office of Environmental Health Hazard Assessment as protective for the respiratory system has established this concentration. Using the maximum DPM concentration from years 2023-2053, the resulting Hazard Index is:

HIDPM = 0.00119/5 = 0.0002

The criterion for significance is a Hazard Index increase of 1.0 or greater. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer risk from diesel emissions created by the proposed project.

Table 12
DPM Emissions Factors for the Proposed Project

Vehicle Class	1-Year Average (Opening Year-2024)		
	Idling (g/hr)	On-Site Travel (g/mi)	Off-Site Travel (g/mi)
Light Heavy Duty Truck 2	0.77769	0.05435	0.02193
Medium Heavy Duty Truck	0.07273	0.03833	0.00897
Heavy Heavy Duty Truck	0.01537	0.01217	0.00826

Vehicle Class	2-Year Average (2025-2026)		
	Idling (g/hr)	On-Site Travel (g/mi)	Off-Site Travel (g/mi)
Light Heavy Duty Truck 2	0.77753	0.04865	0.02001
Medium Heavy Duty Truck	0.05503	0.02941	0.00714
Heavy Heavy Duty Truck	0.01428	0.01163	0.00785

Vehicle Class	14-Year Average (First 14 years of Operation - 2027-2040)		
	Idling (g/hr)	On-Site Travel (g/mi)	Off-Site Travel (g/mi)
Light Heavy Duty Truck 2	0.76775	0.03871	0.01716
Medium Heavy Duty Truck	0.01857	0.00993	0.00305
Heavy Heavy Duty Truck	0.01107	0.00948	0.00644

Vehicle Class	14-Year Average (Second 14 years of Operation - 2041-2054)		
	Idling (g/hr)	On-Site Travel (g/mi)	Off-Site Travel (g/mi)
Light Heavy Duty Truck 2	0.76173	0.03537	0.01654
Medium Heavy Duty Truck	0.00731	0.00320	0.00151
Heavy Heavy Duty Truck	0.00973	0.00818	0.00564

Notes:

Source: EMFAC2021.

Table 13
Summary of Emission Configurations

Emission Source Type	Geometric Configuration	Relevant Assumptions
Off-Site Diesel Truck Traffic	Line Sources	Stack release height: 3.5 m
		Vehicle speed: 35 mph
		Length of the line source (along Whittier Boulevard Frontage Road to Whittier Boulevard northbound and southbound, from Whittier Boulevard to Washington Boulevard westbound)
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021
On-Site Diesel Truck Traffic	Line Sources	Stack release height: 3.5 m
		Vehicle speed: 10 mph
		Length of the line source (from southern driveway truck entrance to loading doack area)
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021
On-Site Diesel Truck Idling	Point Source located at Project Building and entrance gate	Stack release height: 3.5 m
		Stack release characteristics
		> Stack diameter: 0.1 meter (0.3 feet)
		> Stack velocity: 51.9 mps (170 feet/sec)
		> Stack temperature: 366 °k (200° F)
		Idle time: 15 minutes per truck per day
		Vehicle types: heavy-heavy-duty, medium-heavy-duty and light-heavy-duty diesel delivery trucks
		Emission factor: CARB EMFAC2021

Table 14
General Modeling Assumptions - AERMOD Model

Feature	Option Selected
Terrain processing	AERMAP - NED GEOTIFF 30 min
Emission source configuration	See Table 13
Regulatory dispersion options	Default
Land use	Urban, Los Angeles County
Coordinate system	UTM, Zone 11 north
Building downwash	Included in calculations
Receptor height	0 meters above ground (per SCAQMD/OEHHA methodology)
Meteorological data	SCAQMD Pico Rivera Meteorological Data

Table 15
Carcinogenic Risks and Non-Carcinogenic 3rd Trimester Exposure Scenario (0.25-Year)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00114	1.1E-06	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0002
2	0.00112	1.1E-06	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0002
3	0.00107	1.1E-06	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0002
4	0.00082	8.2E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0002
5	0.00099	9.9E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0002
6	0.00085	8.5E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0002
7	0.00062	6.2E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0001
bike trail_8	0.00119	1.2E-06	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0002
9	0.00052	5.2E-07	1.00E+00	DPM	1.1E+00	0.01	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake:

Exposure Frequency (days/year)	350
Exposure Duration (years)	0.25
Daily Breathing Rate	361
Age Sensitivity Factor	10
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	91.25

E= 10^{X}, i.e. E-02 = 10^{-2}

Table 16
Carcinogenic Risks and Non-Carcinogenic Infant Exposure Scenario (2-Year)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.0011	1.1E-06	1.00E+00	DPM	1.1E+00	0.36	5.0E+00	1.4E-03	0.0002
2	0.00108	1.1E-06	1.00E+00	DPM	1.1E+00	0.35	5.0E+00	1.4E-03	0.0002
3	0.00103	1.0E-06	1.00E+00	DPM	1.1E+00	0.34	5.0E+00	1.4E-03	0.0002
4	0.00079	7.9E-07	1.00E+00	DPM	1.1E+00	0.26	5.0E+00	1.4E-03	0.0002
5	0.00094	9.4E-07	1.00E+00	DPM	1.1E+00	0.31	5.0E+00	1.4E-03	0.0002
6	0.0008	8.0E-07	1.00E+00	DPM	1.1E+00	0.26	5.0E+00	1.4E-03	0.0002
7	0.00059	5.9E-07	1.00E+00	DPM	1.1E+00	0.19	5.0E+00	1.4E-03	0.0001
bike trail_8	0.00113	1.1E-06	1.00E+00	DPM	1.1E+00	0.37	5.0E+00	1.4E-03	0.0002
9	0.0005	1.9E-04	1.00E+00	DPM	1.1E+00	0.16	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	2
Daily Breathing Rate	1090
Age Sensitivity Factor	10
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	730

E= 10^{X}, i.e. E-02 = 10^{-2}

Table 17
Carcinogenic Risks and Non-Carcinogenic Child Exposure Scenario (2-16 Years)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00099	9.9E-07	1.00E+00	DPM	1.1E+00	0.36	5.0E+00	1.4E-03	0.0002
2	0.00098	9.8E-07	1.00E+00	DPM	1.1E+00	0.35	5.0E+00	1.4E-03	0.0002
3	0.00093	9.3E-07	1.00E+00	DPM	1.1E+00	0.34	5.0E+00	1.4E-03	0.0002
4	0.00072	7.2E-07	1.00E+00	DPM	1.1E+00	0.26	5.0E+00	1.4E-03	0.0001
5	0.00082	8.2E-07	1.00E+00	DPM	1.1E+00	0.30	5.0E+00	1.4E-03	0.0002
6	0.00068	6.8E-07	1.00E+00	DPM	1.1E+00	0.25	5.0E+00	1.4E-03	0.0001
7	0.00049	4.9E-07	1.00E+00	DPM	1.1E+00	0.18	5.0E+00	1.4E-03	0.0001
bike trail_8	0.00098	9.8E-07	1.00E+00	DPM	1.1E+00	0.35	5.0E+00	1.4E-03	0.0002
9	0.00043	4.3E-07	1.00E+00	DPM	1.1E+00	0.16	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	14
Daily Breathing Rate	572
Age Sensitivity Factor	3
Fraction of Time At Home (FAH)	1
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	5110

E= 10^{X}, i.e. E-02 = 10^{-2}

Table 18
Carcinogenic Risks and Non-Carcinogenic Hazards Adult Exposure Scenario (16-30 Years)

Receptor ID (a)	Maximum Concentration (ug/m3) (b)	Maximum Concentration (mg/m3) (c)	Weight Fraction (d)	Contaminant (e)	Carcinogenic Hazards CPF (mg/kg/day) (f)	Carcinogenic Hazards RISK (per million) (g)	Noncarcinogenic Hazards REL (ug/m3) (h)	Noncarcinogenic Hazards RfD (mg/kg/day) (i)	Noncarcinogenic Hazards Index (j)
1	0.00094	9.4E-07	1.00E+00	DPM	1.1E+00	0.04	5.0E+00	1.4E-03	0.0002
2	0.00092	9.2E-07	1.00E+00	DPM	1.1E+00	0.04	5.0E+00	1.4E-03	0.0002
3	0.00088	8.8E-07	1.00E+00	DPM	1.1E+00	0.04	5.0E+00	1.4E-03	0.0002
4	0.00067	6.7E-07	1.00E+00	DPM	1.1E+00	0.03	5.0E+00	1.4E-03	0.0001
5	0.00075	7.5E-07	1.00E+00	DPM	1.1E+00	0.03	5.0E+00	1.4E-03	0.0002
6	0.00056	5.6E-07	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0001
7	0.00038	3.8E-07	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0001
bike trail_8	0.0009	9.0E-07	1.00E+00	DPM	1.1E+00	0.04	5.0E+00	1.4E-03	0.0002
9	0.00039	3.9E-07	1.00E+00	DPM	1.1E+00	0.02	5.0E+00	1.4E-03	0.0001

Notes:

OEHHA 95th percentile Exposure factors used to calculate TAC intake

Exposure Frequency (days/year)	350
Exposure Duration (years)	14
Daily Breathing Rate	261
Age Sensitivity Factor	1
Fraction of Time At Home (FAH)	0.73
Averaging Time $_{(cancer)}$ (days)	25550
Averaging Time $_{(non\text{-}cancer)}$ (days)	5110

E= 10^{X}, i.e. E-02 = 10^{-2}

Table 19
Cumulative Carcinogenic Risk 30.25-Year Exposure Scenario

Receptor ID	Cumulative RISK (per million)
1	0.77
2	0.76
3	0.72
4	0.56
5	0.65
6	0.54
7	0.39
bike trail_8	0.78
9	0.34

N

Legend

Project Site Boundary
On/Off Site Truck Travel
Truck Idling Locations
Discrete Receptors
Cartesian Receptors

Figure 3
AERMOD Model Source and Receptor Placement

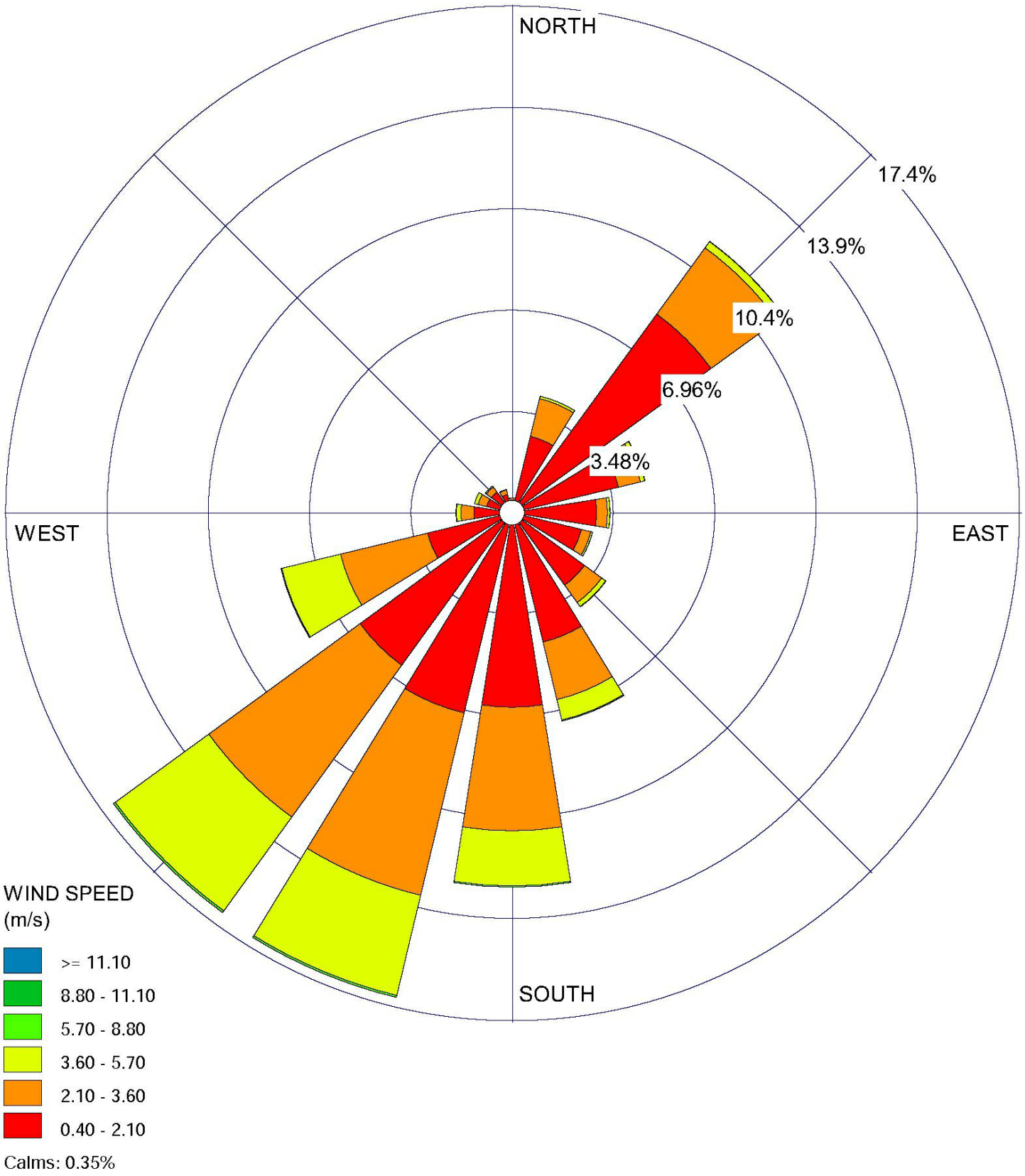
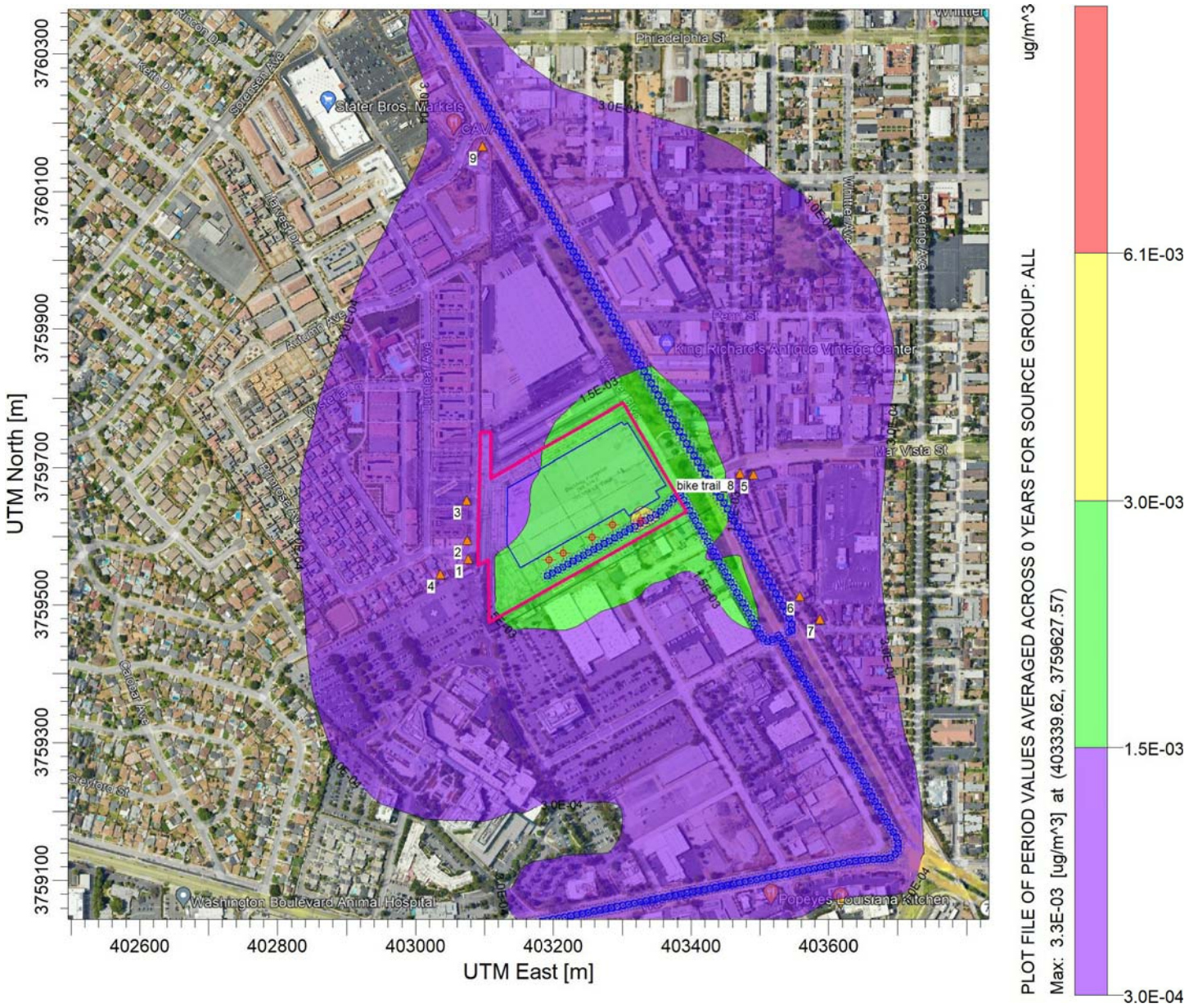


Figure 4
Wind Rose, Pico Rivera



N

Legend

Cancer Risk for Infants 0-2 Years

- 2 in a million
- 1 in a million
- 0.5 in a million
- 0.1 in a million

Figure 5
Modeled Study Area Highest Cancer Risk from Annual DPM Emissions

4. GLOBAL CLIMATE CHANGE ANALYSIS

EXISTING GREENHOUSE GAS ENVIRONMENT

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NOx) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop". The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide (CO_2)

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s. Each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC Fifth Assessment Report, 2014) Emissions of CO_2 from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important drivers of increases in CO_2 emissions from fossil fuel combustion. The contribution of population growth between 2000 and 2010 remained roughly identical to the previous three decades, while the contribution of economic growth has risen sharply.

Methane (CH_4)

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and Chlorofluorocarbons (CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide (N_2O)

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is also commonly used as an aerosol spray propellant, (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars).

Chlorofluorocarbons (CFC)

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons (HFC)

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons (PFC)

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride (SF_6)

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO_2). The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in Table 20. As shown in Table 20, the global warming potential of GHGs ranges from 1 to 22,800.

Table 20
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential[1] (100 Year Horizon)
Carbon Dioxide (CO_2)	–[2]	1
Methane (CH_4)	12	28-36
Nitrous Oxide (NO)	114	298
Hydrofluorocarbons (HFCs)	1-270	12-14,800
Perfluorocarbons (PFCs)	2,600-50,000	7,390-12,200
Nitrogen trifluoride (NF_3)	740	17,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Notes:

Source: http://www3.epa.gov/climatechange/ghgemissions/gases.html

(1) Compared to the same quantity of CO_2 emissions.

(2) Carbon dioxide's lifetime is poorly defined because the gas is not destroyed over time, but instead moves among different parts of the ocean–atmosphere–land system. Some of the excess carbon dioxide will be absorbed quickly (for example, by the ocean surface), but some will remain in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments.

GREENHOUSE GAS STANDARDS AND REGULATION

International

Montreal Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

The Paris Agreement

The Paris Agreement became effective on November 4, 2016. Thirty days after this date at least 55 Parties to the United Nations Framework Convention on Climate Change (Convention), accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions, had deposited their instruments of ratification, acceptance, approval or accession with the Depositary.

The Paris Agreement built upon the Convention and – for the first time – attempted to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As

such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO_2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

Clean Air Act

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO2, CH4, N2O, HFCs, PFCs, and SF6) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.[13]

Executive Order 13432

In response to the Massachusetts v. Environmental Protection Agency ruling, the President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation. Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards.

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The adopted federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards (CAFE)[14] and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO2 per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[15] In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022-2025.

On May 12, 2021, the National Highway Traffic Safety Administration (NHTSA) published a notice of proposed rulemaking in the Federal Register, proposing to repeal "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program," published Sept. 27, 2019 (SAFE I Rule), in which NHTSA codified regulatory text and made additional pronouncements regarding the preemption of state and local laws related to fuel economy standards. Specifically, this document proposes to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document proposes to repeal and withdraw the interpretative statements made by the Agency in the SAFE I Rule preamble, including those regarding the preemption of particular state Greenhouse Gas (GHG) Emissions standards or Zero Emissions Vehicle (ZEV) mandates. As such, this document proposes to establish a clean slate with respect to NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act (EPCA).[16]

State of California

California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards

[13] A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

[14] The Corporate Average Fuel Economy standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the Corporate Average Fuel Economy standards.

[15] United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF.

[16] https://www.federalregister.gov/documents/2021/05/12/2021-08758/corporate-average-fuel-economy-cafe-preemption

[CAAQS]), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2004, the California Air Resources Board (CARB) adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (Title 13 California Code of Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

Assembly Bill 1493

California Assembly Bill 1493 enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009. After adopting these initial greenhouse gas standards for passenger vehicles, CARB adopted continuing standards for future model years.

Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Assembly Bill 32 (California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006)

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO2, CH4, N2O, HFCs, PFCs, and SF6 and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

Senate Bill 32 and Assembly Bill 197

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

Climate Change Scoping Plan (2008)

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561 (h)). CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. The initial Scoping Plan was approved in 2008, and contains a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 $MMTCO_2e$ using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under no-action-taken (NAT) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its 2020 NAT emissions by 28.4 percent in order to meet the 1990 target of 427 $MMTCO_2e$.

First Update to the Climate Change Scoping Plan (2014)

The First Update to the Scoping Plan was approved by CARB in May 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 $MMTCO_2e$. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 $MMTCO_2e$.

2017 Climate Change Scoping Plan

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017. The 2017 Scoping Plan outlines the strategies the State will implement

to achieve the 2030 GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered the Scoping Plan Scenario and four alternatives for achieving the required GHG reductions but ultimately selected the Scoping Plan Scenario.

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals."[17] Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. Implementing this Scoping Plan will ensure that California's climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics. The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

- More Clean Cars and Trucks: The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.
- Increased Renewable Energy: California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350.
- Slashing Super-Pollutants: The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- Cleaner Industry and Electricity: California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- Cleaner Fuels: The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- Smart Community Planning: Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- Improved Agriculture and Forests: The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The 2017 Scoping Plan also evaluates reductions of smog-causing pollutants through California's climate programs.

2022 Climate Change Scoping Plan

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality on November 16, 2022. The 2022 Scoping Plan lays out the sector-by-sector roadmap for California, the world's fifth largest economy, to achieve carbon neutrality by 2045 or earlier, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target. The Plan addresses recent legislation and direction from Governor Newsom and extends and expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The plan also takes the unprecedented step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Specifically, this plan:

[17] California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

SB 32, Pavley. California Global Warming Solutions Act of 2006

(5) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.

(2) This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the California Air Resources Board, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources. AB 197 of the 2015-2016 Regular Session was approved on September 8, 2016.

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs the CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five

years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to the CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009, the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation".
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). The CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by the CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004, suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. CalEEMod modeling defaults to 2008 standards. 2013 Standards were approved and have been effective

since July 1, 2014. 2016 Standards were adopted January 1, 2017. 2019 standards were published July 1, 2019 and became effective January 1, 2020. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Per Section 100 Scope, the 2019 Title 24, Part 6 Building Code now requires healthcare facilities, such as assisted living facilities, hospitals, and nursing homes, to meet documentation requirements of Title 24, Part 1 Chapter 7 – Safety Standards for Health Facilities. A healthcare facility is defined as any building or portion thereof licensed pursuant to California Health and Safety Code Division 2, Chapter 1, Section 1204 or Chapter 2, Section 1250.

Section 120.1 Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times. The 2019 version of the Code also completely revised the minimum ventilation requirements including DVC airflow rates within Section 120.1 Table 120.1–A. Table 120.1-A now includes air classification and recirculation limitations, these are based on either the number of occupants or the CFM/ft^2 (cubic feet per minute per square foot), whichever is greater.

Section 120.1 Ventilation and Indoor Air Quality also included additions for high-rise residential buildings. Requirements include that mechanical systems must provide air filters that and that air filters must be MERV 13 or use a particle size efficiency rating specified in the Energy Code. Window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1.

Per Section 120.1(a) healthcare facilities must be ventilated in accordance with Chapter 4 of the California Mechanical Code and are NOT required to meet the ventilations requirements of Title 24, Part 6.

Section 140.4 Space Conditioning Systems included both additions and revisions within the 2019 Code. The changes provided new requirements for cooling tower efficiency, new chilled water-cooling system requirements, as well as new formulas for calculating allowed fan power. Section 140.4(n) also provide a new exception for mechanical system shut-offs for high-rise multifamily dwelling units, while Section 140.4(o) added new requirements for conditioned supply air being delivered to space with mechanical exhaust.

Section 120.6 Covered Processes added information in regards to adiabatic chiller requirements that included that all condenser fans for air-cooled converseness, evaporative-cooled condensers, adiabatic condensers, gas coolers, air or water fluid coolers or cooling towers must be continuously variable speed, with the speed of all fans serving a common condenser high side controlled in unison .Further, the mid-condensing setpoint must be 70 degrees Fahrenheit for all of the above mentioned systems.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regard to sunlight provided through skylights and overhangs.

Section 130.2 Outdoor Lighting Controls and Equipment added automatic scheduling controls which included that outdoor lighting power must be reduced by 50 to 90 percent, turn the lighting off during unoccupied times and have at least two scheduling options for each luminaire independent from each other and with a 2-hour override function. Furthermore, motion sensing controls must have the ability to reduce power within 15 minutes of area being vacant and be able to come back on again when occupied. An exception allows for lighting subject to a health or life safety statute, ordinance, or regulation may have a minimum time-out period longer than 15 minutes or a minimum dimming level above 50% when necessary to comply with the applicable law.

The 2022 Building Energy Efficiency Standards became effective on January 1, 2023. [18] The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal.

California Code of Regulations (CCR) Title 24, Part 11 (California Green Building Standards)

On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011.

2016 CALGreen Code: The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. During the 2016-

[18] California Energy Commission (CEC). 2022. Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.

2017 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle.

HCD also increased the required construction waste reduction from 50 percent to 65 percent of the total building site waste. This increase aids in meeting CalRecycle's statewide solid waste recycling goal of 75 percent for 2020 as stated in Chapter 476, Statutes of 2011 (AB 341). HCD adopted new regulations requiring recycling areas for multifamily projects of five or more dwelling units. This regulation requires developers to provide readily accessible areas adequate in size to accommodate containers for depositing, storage and collection of non-hazardous materials (including organic waste) for recycling. This requirement assists businesses that were required as of April 1, 2016, to meet the requirements of Chapter 727, Statutes of 2014 (AB 1826).

HCD adopted new regulations to require information on photovoltaic systems and electric vehicle chargers to be included in operation and maintenance manuals. Currently, CALGreen section 4.410.1 Item 2(a) requires operation and maintenance instructions for equipment and appliances. Photovoltaic systems and electric vehicle chargers are systems that play an important role in many households in California, and their importance is increasing every day. HCD incorporated these two terms in the existing language in order to provide clarity to code users as to additional systems requiring operation and maintenance instructions.

HCD updated the reference to Clean Air Standards of the United States Environmental Protection Agency applicable to woodstoves and pellet stoves. HCD also adopted a new requirement for woodstoves and pellet stoves to have a permanent label indicating they are certified to meet the emission limits. This requirement provides clarity to the code user and is consistent with the United States Environmental Protection Agency's New Source Performance Standards. HCD updated the list of standards which can be used for verification of compliance for exterior grade composite wood products. This list now includes four standards from the Canadian Standards Association (CSA): CSA O121, CSA O151, CSA O153 and CSA O325. HCD updated heating and air-conditioning system design references to the ANSI/ACCA 2 Manual J, ANSI/ACCA 1 Manual D, and ANSI/ACCA 3 Manual S to the most recent versions approved by ANSI. HCD adopted a new elective measure for hot water recirculation systems for water conservation. The United States Department of Energy estimates that 3,600 to 12,000 gallons of water per year can be saved by the typical household (with four points of hot water use) if a hot water recirculation system is installed.

2019 CALGreen Code: During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. The 2019 version of the California Green Building Standards became effective January 1, 2020.

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

The 2022 California Green Building Standards Code became effective on January 1, 2023.[19]

HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers.

HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces. [20]

Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-29-15

Executive Order B-29-15, mandates a statewide 25 percent reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

Executive Order B-37-16

Executive Order B-37-16, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25 percent reduction called for in EO B-29-15.

[19] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.

[20] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

Executive Order N-79-20

Executive Order N-79-20 was signed into law on September 23, 2020 and mandates 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the state be zero-emission vehicles by 2045 for all operations where feasible and by 2035 for drayage trucks; and to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

SBX1 2

Signed into law in April 2011, SBX1 2, requires one-third of the State's electricity to come from renewable sources. The legislation increases California's current 20 percent renewables portfolio standard target in 2010 to a 33 percent renewables portfolio standard by December 31, 2020.

Senate Bill 350

Signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources.

Energy Sector and CEQA Guidelines Appendix F

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2016 update to the Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of renovations and addition to existing buildings as well as newly constructed buildings and renovations and additions to existing buildings. The major efficiency improvements to the residential Standards involve improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards. Furthermore, the 2016 update required that enforcement agencies determine compliance with CCR, Title 24, Part 6 before issuing building permits for any construction.[21]

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[22] As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such

[21] California Energy Commission, 2016 Building Energy Efficiency Standards, June 2015, http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf

[22] California Building Standards Commission, 2010 California Green Building Standards Code, (2010).

mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2023.

Regional – South Coast Air Quality Management District

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The California Air Pollution Control Officers Association explored a variety of threshold approaches but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (California Air Resources Board 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 $MTCO_2e$ per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The SCAQMD is in the process of developing thresholds, as discussed below.

SCAQMD Threshold Development

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers. However, the SCAQMD is not the lead agency for this project. Therefore, the five permit threshold tiers do not apply to the proposed project.

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"); however, the SCAQMD Board has not approved the thresholds as of the date of the Notice of Preparation. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:

- All land use types: 3,000 $MTCO_2e$ per year
- Based on land use type: residential: 3,500 $MTCO_2e$ per year; commercial: 1,400 $MTCO_2e$ per year; or mixed use: 3,000 $MTCO_2e$ per year.
- Based on land type: Industrial (where SCAQMD is the lead agency), 10,000 $MTCO_2e$ per year.

- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual (BAU) by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
  - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 $MTCO_2e$/SP/year for plans;
  - Option 3, 2035 target: 3.0 $MTCO_2e$/SP/year for projects and 4.1 $MTCO_2e$/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact report, which includes analyzing feasible alternatives and imposing feasible mitigation measures. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 $MMTCO_2eq$/year). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to BACT for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.

SCAQMD Working Group

Since neither the CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 10,000 MTCO2e for industrial uses.

In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group and adopted Rules 2700, 2701, 2702, and 3002 which are described below.

SCAQMD Rules 2700 and 2701

The SCAQMD adopted Rules 2700 and 2701 on December 5, 2008, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2700 establishes definitions for the various terms used in Regulation XXVII – Global Climate Change. Rule 2701 provides specific protocols for private parties to follow to generate certified GHG emission reductions for projects within the district. Approved protocols include forest projects, urban tree planting, and manure management. The SCAQMD is currently developing additional protocols for other reduction measures. For a GHG emission

reduction project to qualify, it must be verified and certified by the SCAQMD Executive Officer, who has 60 days to approve or deny the Plan to reduce GHG emissions. Upon approval of the Plan, the Executive Officer issues required to issue a certified receipt of the GHG emission reductions within 90 days.

SCAQMD Rule 2702

The SCAQMD adopted Rule 2702 on February 6, 2009, which establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG emission reduction projects within two years, unless extended by the Governing Board. Priority will be given to projects that result in co-benefit emission reductions of GHG emissions and criteria or toxic air pollutants within environmental justice areas. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, or a federal cap and trade program.

SCAQMD Rule 3002

The SCAQMD amended Rule 3002 on November 5, 2010 to include facilities that emit greater than 100,000 tons per year of CO_2e are required to apply for a Title V permit by July 1, 2011. A Title V permit is for facilities that are considered major sources of emissions.

Local – City of Whittier

The City of Whittier does not currently have a Climate Action Plan.

The Resource Management Element of the Envision Whittier General Plan includes the following applicable greenhouse gas related goals and policies:

Goal 3	Energy efficiency and conservation measures that reduce air pollution and greenhouse gas emissions.
RM-3.1:	Reduce emissions generated by motorized vehicles.
RM-3.2:	Reduce energy use in municipal and construction operations.
RM-3.3:	Support the use of energy-efficient design and renewable energy technologies in public and private spaces and development projects.
RM-3.4:	Prioritize compact and equitable development that supports walking and biking to nearby destinations.
RM-3.5:	Increase public awareness about climate change and encourage residents and businesses to become involved in improvement projects and lifestyle changes that help reduce greenhouse gas emissions.
Goal 6	A commitment to sustainability through progressive use of green building policies, practices, and technologies.
RM-6.1:	Support energy efficiency through the Municipal Code and implementation of CalGreen standards.
Goal 7	Increased commitment to renewable energy sources.

In addition, the Public Safety, Noise and Health Element of the Envision Whittier General Plan includes the following goals and policies related to climate adaptation:

Goal 8	An adaptive community responsive to changing climate solutions.

PSNH-8.2: Require the passive solar design of projects to address the possible effects of extreme heat events, such as requiring shade trees and shade shelter areas, shaded playgrounds, bus shelters, and placement of structures that account for proper sun exposure to reduce heat within structures.

PSNH-8.3: Encourage use of pavement materials designed to reflect solar energy, speed up evaporation, and otherwise stay cooler than traditional pavements.

PSNH-8.4: Encourage redundant power sources such as generators or renewable energy sources to help assure power is available for increased power needs in the heat events and to minimize blackouts.

SIGNIFICANCE THRESHOLDS

Appendix G of State CEQA Guidelines

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions[23].

Thresholds of Significance for this Project

To determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD screening threshold of 10,000 MTCO2e per year for industrial uses.

METHODOLOGY

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project-related GHG emissions and the project impacts.

CalEEMod Version 2022.1.1.13 was used to calculate the GHG emissions from the proposed project. The CalEEMod Output for year 2024 is available in Appendix B. Each source of GHG emissions is described in greater detail below.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

[23] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Trip Generation Memo into the CalEEMod Model. The program then applies the emission factors for each trip which is provided by the EMFAC2021 model to determine the vehicular traffic pollutant emissions. See Section 2 for details.

Waste

Waste includes the GHG emissions generated from the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. No changes were made to the default waste parameters.

Water

Water includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. No changes were made to the default water usage parameters.

Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction-related GHG emissions were calculated by CalEEMod and in the manner detailed above in Section 2.

PROJECT GREENHOUSE GAS EMISSIONS

The GHG emissions have been calculated based on the parameters described above. A summary of the results is shown below in Table 21 and the CalEEMod Model run for the proposed project is provided in Appendix B. Table 21 shows that the total for the proposed project's emissions (without credit for any reductions from sustainable design and/or regulatory requirements) would be 5,710.83 MTCO2e per year. According to the thresholds of significance established above, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations of the proposed project would exceed the SCAQMD threshold of 10,000 $MTCO_2e$ per year for industrial uses. Therefore, operation of the proposed project would not create a significant cumulative impact to global climate change. No mitigation is required.

Table 21
Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Maximum Annual Operations	54.50	5,356.00	5,410.00	5.78	0.38	5,685.00
Construction[1]	0.00	25.40	25.40	0.00	0.00	25.83
Total Emissions	54.50	5,381.40	5,435.40	5.78	0.38	5,710.83
SCAQMD Screening Threshold for Industrial Uses						10,000
Exceeds Threshold?						No

Notes:
Source: CalEEMod Version 2022.1.1.13 for Opening Year 2024.
(1) Construction GHG emissions CO2e based on a 30 year amortization rate.

CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION PLANS AND POLICIES

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. As stated previously, the City of Whittier does not currently have a Climate Action Plan; therefore, the project has been compared to the goals of the CARB Scoping Plan.

SB-32

As stated previously, the SCAQMD's tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which was phased in starting in 2012. Therefore, as the project's emissions meet the SCAQMD threshold of 10,000 MTCO2e per year for all land use types (in compliance with Executive Order S-3-05), the project's emissions also comply with the goals of AB 32. Additionally, as the project meets the current interim emissions targets/thresholds established by the SCAQMD, the project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by SB-32. Furthermore, the majority of the post 2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the project will be required to comply with these regulations as they come into effect.

Scoping Plan

Emission reductions in California alone would not be able to stabilize the concentration of greenhouse gases in the earth's atmosphere. However, California's actions set an example and drive progress towards a reduction in greenhouse gases elsewhere. If other states and countries were to follow California's emission reduction targets, this could avoid medium or higher ranges of global temperature increases. Thus, severe consequences of climate change could also be avoided.

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

In November 2017, the CARB released the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals, and includes a description of a suite of specific actions to meet the State's 2030 GHG

limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in the 2017 Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets for SB 32 in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and Trade Program, which constrains and reduces emissions at covered sources.

Independent studies confirm CARB's determination that the state's existing and proposed regulatory framework will put the state on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.[24] Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies would allow the state to meet the 2050 target.

In November of 2022, the CARB released the 2022 Scoping Plan. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

In addition, on May 22, 2014, CARB approved its first update to the AB 32 Scoping Plan (CARB's First Update).[25] CARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by ARB would serve to reduce the Project's post-2020 emissions level to the extent required by applicable by law. As the latest, 2022 Scoping Plan builds upon previous versions, project consistency with applicable strategies of the 2008, 2017, and 2022 Plan are assessed in Table 22. As shown in Table 22, the project is consistent with the applicable strategies within the Scoping Plan.

[24] Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors. https://www.ethree.com/wp-content/uploads/2017/02/E3_Project_Overview_20150406.pdf

[25] California Air Resources Board, First Update to the Climate Change Scoping Plan, May 2014; https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf

Table 22 (1 of 2)
Project Consistency with CARB Scoping Plan Policies and Meaures

2008 Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	No Conflict. The project will be compliant with the current Title 24 standards.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	No Conflict. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. In addition, the 2022 edition of the Code took effect January 1, 2023. The project will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	No Conflict. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the project that are required to comply with the measures will comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	No Conflict. The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills. The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	No Conflict. The project will comply with all applicable City ordinances and CAL Green requirements.

2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	Project Compliance with Recommended Action
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Implement Mobile Source Strategy: At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025 and at least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Implement Mobile Source Strategy: Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.

Table 22 (2 of 2)
Project Consistency with CARB Scoping Plan Policies and Meaures

Implement Mobile Source Strategy: Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	No Conflict. These are CARB enforced standards; vehicles that access the project (that are required to comply with the standards) will comply with the strategy.
Implement SB 350 by 2030: Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	No Conflict. The project will be compliant with the current Title 24 standards.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	No Conflict. The project will be required to comply with City programs, such as City's recycling and waste reduction program, which comply, with the 75 percent reduction required by 2020 per AB 341.

2022 Scoping Plan Priority Key Actions and Recommendations	Project Compliance with Recommended Actions
100 percent of light-duty vehicle sales are ZEVs by 2035.	Not Applicable. This action is in regard to vehcile sales, with an aim to have 100 percent of light-duty vehicle sales be ZEVs by 2035. The proposed project is industrial use and would not interfere with such policymaking.
VMT per capita reduced 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.	No Conflict. The Project would not result in an unmitigated impact to VMT. The Project is an industrial use located in close proximity to existing public transit, including metro and bus lines. Therefore, the Project would be anticipated to contribute to a reduction in VMT per capita.
All electric appliances in new construction beginning 2026 (residential) and 2029 (commercial).	No Conflict. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.In addition, the 2022 edition of the Code took effect January 1, 2023. The project will be subject to these mandatory standards.
For existing residential buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035 (appliances replaced at end of life). For existing commercial buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2045 (appliances replaced at end of life)	Not Applicable. This action is in regard to appliance sales and the proposed project is an industrial use and would not interfere with such policymaking. Furthermore, although this action is not necessarily applicable on a project-specific basis, the proposed project is subject to the California Green Building Standards Code (proposed Part 11, Title 24)which was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. In addition, the 2022 edition of the Code took effect January 1, 2023. The project will be subject to these mandatory standards.

Notes:

(1) Source: CARB Scoping Plan (2008, 2017, and 2022)

CUMULATIVE GREENHOUSE GAS IMPACTS

Although the project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. Therefore, in the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[26] The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.

The state has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. Consistent with CEQA Guidelines Section 15064h(3),[27] the City, as lead agency, has determined that the project's contribution to cumulative GHG emissions and global climate change would be less than significant if the project is consistent with the applicable regulatory plans and policies to reduce GHG emissions.

As discussed in the Consistency With Applicable Greenhouse Gas Reduction Plans and Policies section above, the project is consistent with the goals and objectives of the CARB Scoping Plan.

Thus, given the project's consistency with the CARB Scoping Plan and SCAQMD's 10,000 MTCO2e per year threshold for industrial uses, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Given this consistency, it is concluded that the project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

[26] Source: California Air Pollution Control Officers Association, CEQA & Climate change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, (2008).

[27] The State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact insignificant. Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."

5. ENERGY ANALYSIS

EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the project area and region.

Overview

California's estimated annual energy use as of 2021 included:

- Approximately 277,764 gigawatt hours of electricity;[28]
- Approximately 2,092,612 million cubic feet of natural gas per year;[29] and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015).[30]

As of 2020, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 34 percent transportation;
- Approximately 24.6 percent industrial;
- Approximately 21.8 percent residential; and
- Approximately 19.6 percent commercial.[31]

California's electricity in-state generation system generates approximately 194,127 gigawatt-hours each year. In 2021, California produced approximately 70 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 12 percent) and the U.S. Southwest (approximately 18 percent). Natural gas is the main source for electricity generation at approximately 50.2 percent of the total in-state electric generation system power as shown in Table 23.

A summary of and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- California was the seventh-largest producer of crude oil among the 50 states in 2021, and, as of January 2021, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states and accounted for fifteen percent of the nation's jet fuel consumption and ten percent of motor gasoline consumption in 2020.
- In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.
- In 2021, California was the nation's top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand.

[28] California Energy Commission. Energy Almanac. Total Electric Generation. [Online] 2021. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation.

[29] Natural Gas Consumption by End Use. U.S. Energy Information Administration. [Online] 2021. https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.

[30] California Energy Commission. Revised Transportation Energy Demand Forecast 2018-2030. [Online] 2021. https://www.energy.ca.gov/data-reports/planning-and-forecasting

[31] U.S. Energy Information Administration. California Energy Consumption by End-Use Sector, 2020. California State Profile Overview.[Online] December 20, 2022 https://www.eia.gov/state/?sid=CA#tabs-2

- In 2021, California was the fourth-largest electricity producer in the nation, but the state was also the nation's second-largest consumer of electricity, and in 2020, it received about 30% of its electricity supply from generating facilities outside of California, including imports from Mexico.[32]

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas, and transportation fuel for vehicle trips associated with the proposed project.

Electricity

Electricity would be provided to the project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons, within a service area encompassing approximately 50,000 square miles.[33] SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.[34]

Table 24 identifies SCE's specific proportional shares of electricity sources in 2021. As shown in Table 24, the 2021 SCE Power Mix has renewable energy at 31.4 percent of the overall energy resources, of which biomass and waste is at 0.1 percent, geothermal is at 5.7 percent, eligible hydroelectric is at 0.5 percent, solar energy is at 14.9 percent, and wind power is at 10.2 percent; other energy sources include large hydroelectric at 2.3 percent, natural gas at 22.3 percent, nuclear at 9.2 percent, other at 0.2 percent, and unspecified sources at 34.6 percent.

Natural Gas

Natural gas would be provided to the project by Southern California Gas (SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

The CPUC regulates natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38% of their natural gas supply from basins located in the U.S. Southwest, 27% from Canada, 27% from the U.S. Rocky Mountain area, and 8% from production located in California."[35]

[32] State Profile Overview. [Online] [Cited: March 17, 2022.] https://www.eia.gov/state/?sid=CA#tabs-2

[33] https://www.sce.com/about-us/who-we-are/leadership/our-service-territory

[34] California Energy Commission. Utility Energy Supply plans from 2015. https://www.energy.ca.gov/almanac/electricity_data/supply_forms.html

[35] California Public Utilities Commission. Natural Gas and California. http://www.cpuc.ca.gov/natural_gas/

Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the project patrons and employees via commercial outlets.

The most recent data available shows the transportation sector emits 38 percent of the total greenhouse gases in the state and about 84 percent of smog-forming oxides of nitrogen (NOx).[36,37] About 28 percent of total United States energy consumption in 2021 was for transporting people and goods from one place to another. In 2021, petroleum comprised about 77 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.[38] In 2021, about 134.83 billion gallons (or about 3.21 billion barrels) of finished motor gasoline were consumed in the United States, an average of about 369 million gallons (or about 8.8 million barrels) per day.[39]

REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

Federal Regulations

Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[40]

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012.[41]

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[36] CARB. California Greenhouse Gas Emissions Inventory – 2022 Edition. https://www.arb.ca.gov/cc/inventory/data/data.htm

[37] CARB. 2016 SIP Emission Projection Data. https://www.arb.ca.gov/app/emsinv/2017/emseic1_query.php?F_DIV=-4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA

[38] US Energy Information Administration. Use of Energy in the United States Explained: Energy Use for Transportation. https://www.eia.gov/energyexplained/?page=us_energy_transportation

[39] https://www.eia.gov/tools/faqs/faq.php?id=23&t=10

[40] https://www.nhtsa.gov/lawsregulations/corporate-average-fuel-economy.

[41] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-final-rule.

Intermodal Surface transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State Regulations

Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2019 Integrated Energy Policy Report (2019 IEPR) was adopted February 20, 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast.[42]

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

[42] California Energy Commission. Final 2019 Integrated Energy Policy Report. February 20, 2020. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report

California Building Standards Code (Title 24)

The California Building Standards Code Title 24 was previously discussed in Section 4 of this report.

California Building Energy Efficiency Standards (Title 24, Part 6)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020. The 2019 Title 24 standards include efficiency improvements to the lighting and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers. For example, window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1. Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regard to sunlight provided through skylights and overhangs.

All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

The 2022 Building Energy Efficiency Standards became effective on January 1, 2023.[43] The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.

[43] California Energy Commission (CEC). 2022. Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.

- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal.

California Building Energy Efficiency Standards (Title 24, Part 11)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

As previously discussed in Section 3 of this report, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient

Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

The 2022 California Green Building Standards Code became effective on January 1, 2023.[44]

HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers.

HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces. [45]

Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

Senate Bill 350

As previously discussed in Section 4 of this report, Senate Bill 350 (SB 350) was signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions and ramp up the deployment of clean energy resources.

Assembly Bill 32

As discussed in Section 4 of this report, in 2006 the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective. Please see Section 4 for further detail on AB 32.

[44] California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.

[45] https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes

Assembly Bill 1493/Pavley Regulations

As discussed in Section 4 of this report, California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a "waiver" request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the "waiver" request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State's request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

Executive Order S-1-07/Low Carbon Fuel Standard

As discussed in Section 4 of this report, Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

California Air Resources Board

CARB's Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions control program was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.15 The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[46]

[46] California Air Resources Board, California's Advanced Clean Cars Program, January 18, 2017. www.arb.ca.gov/msprog/acc/acc.htm.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, form In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NOX) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission-controlled models would use petroleum-based fuel in a more efficient manner.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32.

As previously stated in Section 4 of this report, Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

Evaluation Criteria

In compliance with Appendix G of the State CEQA Guidelines, this report analyzes the project's anticipated energy use to determine if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Methodology

Information from the CalEEMod 2022.1.1.13 Output contained in Appendix B, utilized for air quality and greenhouse gas analyses in Sections 2 and 4 of this report, were also utilized for this analysis. The CalEEMod output detail project related construction equipment, transportation energy demands, and facility energy demands.

Construction Energy Demands

Construction is anticipated to occur between the beginning of December 2023 and mid-December 2024, and be completed in one phase. Staging of construction vehicles and equipment will occur on-site. The approximately 12.5-month schedule is relatively short and the project site is approximately 13.49 acres.

Construction Equipment Electricity Usage Estimates

As stated previously, Electrical service will be provided by Southern California Edison. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed project. Based on the 2021 National Construction Estimator, Richard Pray (2021)[47], the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.37. The project plans to develop the site with a 295,959 square foot industrial use. Based on Table 25, the total power cost of the on-site electricity usage during the construction of the proposed project is estimated to be approximately $8,767,79. As shown in Table 14, the total electricity usage from project construction related activities is estimated to be approximately 66,544 kWh.

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Fuel consumed by construction equipment was evaluated with the following assumptions:

- Construction schedule of 12.5 months
- All construction equipment was assumed to run on diesel fuel
- Typical daily use of 8 hours, with some equipment operating from ~6-7 hours
- Aggregate fuel consumption rate for all equipment was estimated at 18.5 hp-hr/gallon (from CARB's 2017 Emissions Factors Tables and fuel consumption rate factors as shown in Table D-21 of the Moyer Guidelines: (https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf).
- Diesel fuel would be the responsibility of the equipment operators/contractors and would be sources within the region.
- Project construction represents a "single-event" for diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources during long term operation.

[47] Pray, Richard. 2021 National Construction Estimator. Carlsbad : Craftsman Book Company, 2021.

Using the CalEEMod data input for the air quality and greenhouse gas analyses (Sections 2 and 4 of this report), the project's construction phase would consume electricity and fossil fuels as a single energy demand, that is, once construction is completed their use would cease. CARB's 2017 Emissions Factors Tables show that on average, aggregate fuel consumption (gasoline and diesel fuel) would be approximately 18.5 hp-hr-gal. Table 26 shows the results of the analysis of construction equipment.

As presented in Table 26, project construction activities would consume an estimated 43,341 gallons of diesel fuel. As stated previously, project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

Construction Worker Fuel Estimates

It is assumed that construction worker trips are from light duty autos (LDA), light duty truck 1 (LDT1), and light duty truck 2 (LDT2) at a mix of 25 percent/50 percent/25 percent, respectively, along area roadways.[48] With respect to estimated VMT, the construction worker trips would generate an estimated 438,822 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.13 model defaults.

Vehicle fuel efficiencies for construction workers were estimated in the air quality and greenhouse gas analyses (Sections 2 and 4 of this report) using information generated using CARB's 2021 EMFAC model (see Appendix B for details). An aggregate fuel efficiency of 25.44 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. Table 27 shows that an estimated 17,249 gallons of fuel would be consumed for construction worker trips.

Construction Vendor/Hauling Fuel Estimates

Tables 28 and 29 show the estimated fuel consumption for vendor and hauling during building construction and architectural coating. With respect to estimated VMT, the vendor and hauling trips would generate an estimated 195,289 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.13 model defaults.

For the architectural coatings it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light duty vehicles. Therefore, vendors delivering construction material or hauling debris from the site during grading would use medium to heavy duty vehicles with an average fuel consumption of 7.66 mpg for medium heavy-duty trucks and 6.29 for heavy heavy-duty trucks (see Appendix B for details). [49] Tables 28 and 29 show that an estimated 29,866 gallons of fuel would be consumed for vendor and hauling trips.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately 12.5-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

[48] CalEEMod User's Guide Appendix C (April 2022) states that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).

[49] CalEEMod User's Guide Appendix C (April 2022) states that vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT) and that hauling and onsite truck trips are made by a fleet consisting of 100 percent HHDT.

The project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with these measures would result in a more efficient use of construction-related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Operational Energy Demands

Energy consumption in support of or related to project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Fuel Consumption

Using the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 4 of this report), it is assumed that an average trip for autos and light trucks was assumed to be 14.4 miles and 3- 4-axle trucks were assumed to travel an average of 40 miles.[50] As the project includes the development of the site with industrial uses; therefore, in order to present a worst-case scenario, it was assumed that vehicles would operate 365 days per year. Table 30 shows the estimated annual fuel consumption for all classes of vehicles from autos to heavy-heavy trucks.[51]

The proposed project would generate 998 trips per day. The vehicle fleet mix was used from the CalEEMod output. Table 30 shows that an estimated 544,818 gallons of fuel would be consumed per year for the operation of the proposed project.

Trip generation and VMT generated by the proposed project are consistent with other similar industrial uses of similar scale and configuration as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). That is, the proposed project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the state of California consumed approximately 4.2 billion gallons of diesel and 15.1 billion gallons of gasoline in 2015.[52,53] Therefore, the increase in fuel consumption from the proposed project is insignificant in comparison to the State's demand. Therefore, project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Facility Energy Demands (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity (provided by Southern California Edison) and natural gas (provided by Southern California Gas

[50] CalEEMod default distance for H-W (home-work) is 14.4 miles and 8.85 miles for W-O (work-other). However, due to the project's industrial use the distance for W-O (work-other) was changed to 40 miles per SCAQMD recommendations.

[51] Average fuel economy based on aggregate mileage calculated in EMFAC 2021 for opening year (2024). See Appendix B for EMFAC output.

[52] https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics

[53] https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics

Company). The annual natural gas and electricity demands were provided per the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 4 of this report) and are provided in Table 31.

As shown in Table 31, the estimated electricity demand for the proposed project is approximately 5,417,283 kWh per year. In 2021, the non-residential sector of the County of Los Angeles consumed approximately 44,438 million kWh of electricity.[54] In addition, the estimated natural gas consumption for the proposed project is approximately 7,501,515 kBTU per year. In 2021, the non-residential sector of the County of Los Angeles consumed approximately 1,743 million therms of gas.[55] Therefore, the increase in both electricity and natural gas demand from the proposed project is insignificant compared to the County's 2021 non-residential sector demand.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). The proposed project would be required to comply with Title 24 standards.

Furthermore, the proposed project energy demands in total would be comparable to other non-residential projects of similar scale and configuration. Therefore, the project facilities' energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Renewable Energy and Energy Efficiency Plan Consistency

Regarding federal transportation regulations, the project site is located in an already developed area. Access to/from the project site is from existing roads. These roads are already in place so the project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because SCAG is not planning for intermodal facilities in the project area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by Southern California Edison and Southern California Gas Company.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources.

Regarding the State's Renewable Energy Portfolio Standards, the project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CALGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

As shown in Section 4 above, the proposed project would be consistent with the applicable goals of the CARB Scoping Plan.

Conclusions

As supported by the preceding analyses, project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. The proposed project does not include any

[54] California Energy Commission, Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx

[55] California Energy Commission, Gas Consumption by County. http://ecdms.energy.ca.gov/gasbycounty.aspx

unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities and is industrial project that is not proposing any additional features that would require a larger energy demand than other industrial projects of similar scale and configuration. The energy demands of the project are anticipated to be accommodated within the context of available resources and energy delivery systems. The project would therefore not cause or result in the need for additional energy producing or transmission facilities. The project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the project proposes industrial uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

Table 23
Total Electricity System Power (California 2021)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Percent of Imports	Total California Energy Mix (GWh)	Total California Power Mix
Coal	303	0.20%	181	7,788	7,969	9.50%	8,272	3.00%
Natural Gas	97,431	50.20%	45	7,880	7,925	9.50%	105,356	37.90%
Oil	37	0.00%	-	-	-	0.00%	37	0.00%
Other (Waste Heat/Petroleum Coke)	382	0.20%	68	15	83	0.10%	465	0.20%
Nuclear	16,477	8.50%	524	8756	9281	11.10%	25,758	9.30%
Large Hydro	12,036	6.20%	12,042	1,578	13,620	16.30%	25,656	9.20%
Unspecified Sources of Power	-	0.00%	8,156	10,731	18,887	22.60%	18,887	6.80%
Renewables	67,461	34.80%	11,555	14,317	25,872	30.90%	93,333	33.60%
Biomass	5,381	2.80%	864	26	890	1.10%	6,271	2.30%
Geothermal	11,116	5.70%	192	1,906	2,098	2.50%	13,214	4.80%
Small Hydro	2,531	1.30%	304	1	304	0.40%	2,835	1.00%
Solar	33,260	17.10%	220	5,979	6,199	7.40%	39,458	14.20%
Wind	15,173	7.80%	9,976	6,405	16,381	19.60%	31,555	11.40%
Total	194,127	100%	32,572	51,064	83,636	100%	277,764	100%

Notes:

(1) Source: California Energy Commission. 2021 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation

Table 24
SCE 2021 Power Content Mix

Energy Resources	2021 SCE Power Mix
Eligible Renewable	31.4%
Biomass & Biowaste	*0.1%*
Geothermal	*5.7%*
Eligible Hydroelectric	*0.5%*
Solar	*14.9%*
Wind	*10.2%*
Coal	0.0%
Large Hydroelectric	2.3%
Natural Gas	22.3%
Nuclear	9.2%
Other	0.2%
Unspecified Sources of power*	34.6%
Total	100%

Notes:

(1) Source: https://www.energy.ca.gov/filebrowser/download/4676

* Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources.

Table 25
Project Construction Power Cost and Electricity Usage

Power Cost (per 1,000 square foot of building per month of construction)	Total Building Size (1,000 Square Foot)	Construction Duration (months)	Total Project Construction Power Cost
$2.37	295.959	12.5	$8,767.79

Cost per kWh	Total Project Construction Electricity Usage (kWh)
$0.13	66,544

*Assumes the project will be under the GS-1 General Service rate under SCE.
https://www.sce.com/regulatory/tariff-books/rates-pricing-choices

Table 26
Construction Equipment Fuel Consumption Estimates

Phase	Number of Days	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	HP hrs/day	Total Fuel Consumption (gal diesel fuel)[1]
Demolition	52	Concrete/Industrial Saws	1	8	33	0.73	193	542
	52	Excavators	3	8	36	0.38	328	923
	52	Rubber Tired Dozers	2	8	367	0.40	2,349	6,602
Site Preparation	9	Rubber Tired Dozers	3	8	367	0.40	3,523	1,714
	9	Tractors/Loaders/Backhoes	4	8	84	0.37	995	484
Grading	42	Excavators	2	8	36	0.38	219	497
	42	Graders	1	8	148	0.41	485	1,102
	42	Rubber Tired Dozers	1	8	367	0.4	1,174	2,666
	42	Scrapers	2	8	423	0.48	3,249	7,375
	42	Tractors/Loaders/Backhoes	2	8	84	0.37	497	1,129
Building Construction	153	Cranes	1	7	367	0.29	745	6,161
	153	Forklifts	3	8	82	0.2	394	3,255
	153	Generator Sets	1	8	14	0.74	83	685
	153	Tractors/Loaders/Backhoes	3	7	84	0.37	653	5,398
	153	Welders	1	8	46	0.45	166	1,370
Paving	42	Pavers	2	8	81	0.42	544	1,236
	42	Paving Equipment	2	8	89	0.36	513	1,164
	42	Rollers	2	8	36	0.38	219	497
Architectural Coating	94	Air Compressors	1	6	37	0.48	107	541
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								43,341

Notes:

(1) Using Carl Moyer Guidelines Table D-21 Fuel consumption rate factors (bhp-hr/gal) for engines less than 750 hp. (Source: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf)

Table 27
Construction Worker Fuel Consumption Estimates

Phase	Number of Days	Worker Trips/Day	Trip Length (miles)[1]	Vehicle Miles Traveled[1]	Average Vehicle Fuel Economy (mpg)[2]	Estimated Fuel Consumption (gallons)
Demolition	52	15	18.5	14,430	25.44	567
Site Preparation	9	17.5	18.5	2,914	25.44	115
Grading	42	20	18.5	15,540	25.44	611
Building Construction	153	124	18.5	350,982	25.44	13,796
Paving	42	15	18.5	11,655	25.44	458
Architectural Coating	94	24.9	18.5	43,301	25.44	1,702
Total Construction Worker Fuel Consumption						17,249

Notes:

(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.13 defaults.

(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).

Table 28
Construction Vendor Fuel Consumption Estimates (MHD & HHD Trucks)

Phase	Number of Days	Vendor Trips/Day	Trip Length (miles)[1]	Vehicle Miles Traveled[1]	Average Vehicle Fuel Economy (mpg)[2]	Estimated Fuel Consumption (gallons)
Demolition	52	0	10.20	0	6.98	0
Site Preparation	9	0	10.20	0	6.98	0
Grading	42	0	10.20	0	6.98	0
Building Construction	153	48.5	10.20	75,689	6.98	10,851
Paving	42	0	10.20	0	6.98	0
Architectural Coating	94	0	10.20	0	6.98	0
Total Construction Vendor Fuel Consumption						10,851

Notes:

(1) Assumptions for the vendor trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.13 defaults.

(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT).

Table 29
Construction Hauling Fuel Consumption Estimates (HHD Trucks)

Phase	Number of Days	Total Hauling Trips	Trip Length (miles)[1]	Vehicle Miles Traveled[1]	Average Vehicle Fuel Economy (mpg)[2]	Estimated Fuel Consumption (gallons)
Demolition	52	115	20	119,600	6.29	19,014
Site Preparation	9	0	20	0	6.29	0
Grading	42	0	20	0	6.29	0
Building Construction	153	0	20	0	6.29	0
Paving	42	0	20	0	6.29	0
Architectural Coating	94	0	20	0	6.29	0
Total Construction Hauling Fuel Consumption						19,014

Notes:

(1) Assumptions for the hauling trip length and vehicle miles traveled are consistent with CalEEMod Version 2022.1.1.13 defaults.

(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes hauling and onsite truck trips are made by a fleet consisting of 100 percent HHDT.

Table 30
Estimated Vehicle Operations Fuel Consumption

Vehicle Type	Vehicle Mix	Number of Vehicles	Average Trip (miles)[1]	Daily VMT	Average Fuel Economy (mpg)[2]	Total Gallons per Day	Total Annual Fuel Consumption (gallons)
Light Auto	Automobile	450	14.4	6,457	31.35	205.96	75,175
Light Truck	Automobile	39	14.4	564	24.4	23.13	8,442
Light Truck	Automobile	200	14.4	2,874	23.91	120.19	43,868
Light Heavy Truck	2-Axle Truck	10	40.0	400	15.57	25.69	9,377
Light Heavy Truck 10,000 lbs +	2-Axle Truck	3	40.0	120	14.86	8.08	2,948
Motorcycle	Automobile	18	14.4	258	41.52	6.23	2,272
Medium Truck	Automobile	122	14.4	1,752	19.6	89.38	32,625
Motor Home	--	0	40.0	0	5.73	0.00	0
Medium Heavy Truck	3-Axle Truck	12	40.0	480	7.75	61.94	22,606
Other Bus	--	0	40.0	0	6.07	0.00	0
School Bus	--	0	40.0	0	6.49	0.00	0
Urban Bus	--	0	40.0	0	3.45	0.00	0
Heavy Heavy Truck	4-Axle Truck	144	40.0	5,760	6.05	952.07	347,504
Total		998	--	18,665	-	1,492.65	--
Total Annual Fuel Consumption							544,818

Notes:

(1) Based on the size of the site and relative location, trips were assumed to be local rather than regional.

(2) Based on EMFAC2021 emission rates for opening year of 2024.

Table 31
Project Annual Operational Energy Demand Summary

Natural Gas Demand	kBTU/year[1]
Industrial Park	7,501,515
Total	7,501,515

Electricity Demand	kWh/year[1]
Industrial Park	5,274,074
Parking Lot	143,209
Total	5,417,283

Notes:

(1) Taken from the CalEEMod Version 2022.1.1.13 output (Appendix B of this report).

6. EMISSIONS REDUCTION MEASURES

CONSTRUCTION MEASURES

Adherence to SCAQMD Rule 403 is required.

No construction mitigation is required.

OPERATIONAL MEASURES

No operational mitigation is required.

7. REFERENCES

California Air Pollution Control Officers Association

2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board

2008 Resolution 08-43

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

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2013 Almanac of Emissions and Air Quality.
Source: https://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.

2017 California's 2017 Climate Change Scoping Plan. November.

2022 2022 Scoping Plan for Achieving Carbon Neutrality. November 16.

2023 Historical Air Quality, Top 4 Summary

City of Whittier

2021 Envision Whittier General Plan. October 12.

Ganddini Group, Inc.

2022 Whittier Boulevard Business Park Impact Analysis. January 24.

2023 12352 Whittier Boulevard Industrial Project Trip Generation Memorandum. June 13.

Governor's Office of Planning and Research

2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

2018 CEQA Guideline Sections to be Added or Amended

Intergovernmental Panel on Climate Change (IPCC).

2014 IPCC Fifth Assessment Report, Climate Change 2014: Synthesis Report

Office of Environmental Health Hazard Assessment

2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District

1993 CEQA Air Quality Handbook

2003 Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis

2005 Rule 403 Fugitive Dust

2007 2007 Air Quality Management Plan

2008 Final Localized Significance Threshold Methodology, Revised

2012 Final 2012 Air Quality Management Plan

2016 2016 Air Quality Management Plan

2021 MATES-V Multiple Air Toxics Exposure Study in the South Coast AQMD Final Report. August.

2022 2022 Scoping Plan for Achieving Carbon Neutrality. November 16.

Southern California Association of Governments

2020 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

U.S. Environmental Protection Agency (EPA)

2017 Understanding Global Warming Potentials
(Source: https://www.epa.gov/ghgemissions/understanding-global-warming-potentials)

U.S. Geological Survey

2011 Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California

APPENDICES

Appendix A Glossary of Terms

Appendix B CalEEMod Model Detailed Report & EMFAC Data

Appendix C HRA Data and AERMOD Model Printouts

APPENDIX A

GLOSSARY OF TERMS

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SANBAG	San Bernardino Association of Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SSAB	Salton Sea Air Basin
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
TAC	Toxic air contaminants
VOC	Volatile organic compounds

APPENDIX B

CALEEMOD MODEL DETAILED REPORT & EMFAC DATA

19391 Whittier Boulevard Business Park Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	19391 Whittier Boulevard Business Park
Construction Start Date	12/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	18.8
Location	12352 Whittier Blvd, Whittier, CA 90606, USA
County	Los Angeles-South Coast
City	Whittier
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4815
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Industrial Park	296	1000sqft	6.63	295,959	78,889	—	—	—
Parking Lot	417	Space	3.75	0.00	0.00	—	—	—
Other Non-Asphalt Surfaces	1.29	Acre	1.29	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.29	33.1	34.4	37.6	0.06	1.45	2.65	4.10	1.33	1.01	2.34	—	7,926	7,926	0.32	0.33	13.4	8,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.42	33.0	38.4	35.7	0.09	1.60	8.58	9.88	1.47	2.68	4.15	—	11,849	11,849	0.64	1.33	0.51	12,263
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.03	9.38	14.8	18.1	0.03	0.57	2.10	2.68	0.53	0.54	1.07	—	4,600	4,600	0.20	0.25	2.98	4,683
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.37	1.71	2.71	3.30	0.01	0.10	0.38	0.49	0.10	0.10	0.20	—	762	762	0.03	0.04	0.49	775

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.29	33.1	34.4	37.6	0.06	1.45	2.65	4.10	1.33	1.01	2.34	—	7,926	7,926	0.32	0.33	13.4	8,044
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.13	3.08	38.4	28.6	0.09	1.30	8.58	9.88	1.21	1.57	2.77	—	11,849	11,849	0.64	1.33	0.51	12,263
2024	4.42	33.0	36.1	35.7	0.09	1.60	8.53	9.69	1.47	2.68	4.15	—	11,715	11,715	0.58	1.33	0.50	12,127
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.25	0.19	2.34	1.73	0.01	0.08	0.52	0.60	0.07	0.09	0.17	—	719	719	0.04	0.08	0.51	745
2024	2.03	9.38	14.8	18.1	0.03	0.57	2.10	2.68	0.53	0.54	1.07	—	4,600	4,600	0.20	0.25	2.98	4,683
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.05	0.03	0.43	0.32	< 0.005	0.01	0.09	0.11	0.01	0.02	0.03	—	119	119	0.01	0.01	0.08	123
2024	0.37	1.71	2.71	3.30	0.01	0.10	0.38	0.49	0.10	0.10	0.20	—	762	762	0.03	0.04	0.49	775

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.35	13.1	17.6	70.7	0.22	0.38	13.7	14.1	0.37	3.52	3.89	329	32,782	33,111	34.9	2.26	147	34,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.03	11.0	18.4	51.9	0.21	0.36	13.7	14.1	0.35	3.52	3.87	329	32,160	32,489	34.9	2.28	78.9	34,120

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.58	12.4	18.7	62.4	0.22	0.37	13.6	13.9	0.36	3.48	3.84	329	32,349	32,678	34.9	2.28	107	34,338
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.20	2.27	3.41	11.4	0.04	0.07	2.48	2.54	0.07	0.64	0.70	54.5	5,356	5,410	5.78	0.38	17.8	5,685

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.84	3.79	15.5	56.2	0.21	0.21	13.7	13.9	0.20	3.52	3.72	—	21,742	21,742	0.93	1.87	70.4	22,392
Area	2.29	9.23	0.11	12.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	52.9	52.9	< 0.005	< 0.005	—	53.1
Energy	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	10,300	10,300	0.70	0.06	—	10,336
Water	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Waste	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0
Total	7.35	13.1	17.6	70.7	0.22	0.38	13.7	14.1	0.37	3.52	3.89	329	32,782	33,111	34.9	2.26	147	34,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.81	3.77	16.4	50.2	0.20	0.21	13.7	13.9	0.20	3.52	3.72	—	21,173	21,173	0.94	1.89	1.82	21,762
Area	—	7.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	10,300	10,300	0.70	0.06	—	10,336
Water	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Waste	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0

Total	5.03	11.0	18.4	51.9	0.21	0.36	13.7	14.1	0.35	3.52	3.87	329	32,160	32,489	34.9	2.28	78.9	34,120
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.79	3.75	16.6	51.9	0.20	0.21	13.6	13.8	0.20	3.48	3.68	—	21,325	21,325	0.94	1.89	30.4	21,943
Area	1.57	8.57	0.07	8.81	< 0.005	0.01	—	0.01	0.02	—	0.02	—	36.3	36.3	< 0.005	< 0.005	—	36.4
Energy	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	10,300	10,300	0.70	0.06	—	10,336
Water	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Waste	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0
Total	6.58	12.4	18.7	62.4	0.22	0.37	13.6	13.9	0.36	3.48	3.84	329	32,349	32,678	34.9	2.28	107	34,338
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.68	3.02	9.46	0.04	0.04	2.48	2.51	0.04	0.64	0.67	—	3,531	3,531	0.16	0.31	5.03	3,633
Area	0.29	1.56	0.01	1.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.00	6.00	< 0.005	< 0.005	—	6.02
Energy	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,705	1,705	0.12	0.01	—	1,711
Water	—	—	—	—	—	—	—	—	—	—	—	21.7	114	136	2.23	0.05	—	207
Waste	—	—	—	—	—	—	—	—	—	—	—	32.7	0.00	32.7	3.27	0.00	—	115
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.8	12.8
Total	1.20	2.27	3.41	11.4	0.04	0.07	2.48	2.54	0.07	0.64	0.70	54.5	5,356	5,410	5.78	0.38	17.8	5,685

3. Construction Emissions Details

3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.39	2.84	27.3	23.5	0.03	1.20	—	1.20	1.10	—	1.10	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	6.21	6.21	—	0.94	0.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.66	1.42	< 0.005	0.07	—	0.07	0.07	—	0.07	—	208	208	0.01	< 0.005	—	209
Demolition	—	—	—	—	—	—	0.38	0.38	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.4	34.4	< 0.005	< 0.005	—	34.5
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.09	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	205	205	0.01	0.01	0.02	208
Vendor	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	0.00

Hauling	0.66	0.17	11.0	4.04	0.05	0.10	2.18	2.28	0.10	0.58	0.68	—	8,219	8,219	0.49	1.30	0.48	8,618
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.6	12.6	< 0.005	< 0.005	0.02	12.8
Vendor	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	0.00
Hauling	0.04	0.01	0.67	0.24	< 0.005	0.01	0.13	0.14	0.01	0.04	0.04	—	499	499	0.03	0.08	0.49	523
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.09	2.09	< 0.005	< 0.005	< 0.005	2.12
Vendor	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	0.00
Hauling	0.01	< 0.005	0.12	0.04	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	82.5	82.5	< 0.005	0.01	0.08	86.6

3.3. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	6.21	6.21	—	0.94	0.94	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	2.09	1.83	< 0.005	0.09	—	0.09	0.08	—	0.08	—	288	288	0.01	< 0.005	—	289

Demolitio	—	—	—	—	—	—	0.52	0.52	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	47.7	47.7	< 0.005	< 0.005	—	47.9
Demolitio n	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203
Vendor	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	0.00
Hauling	0.61	0.17	10.5	3.88	0.05	0.10	2.13	2.23	0.10	0.58	0.68	—	8,089	8,089	0.43	1.30	0.48	8,487
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.03	17.4
Vendor	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	0.00
Hauling	0.05	0.01	0.90	0.32	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	681	681	0.04	0.11	0.68	715
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	0.01	2.88
Vendor	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	0.00
Hauling	0.01	< 0.005	0.16	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	113	113	0.01	0.02	0.11	118

3.5. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.89	0.81	< 0.005	0.04	—	0.04	0.04	—	0.04	—	131	131	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.13	0.13	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	21.6	21.6	< 0.005	< 0.005	—	21.7

Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	234	234	0.01	0.01	0.03	237
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.86	5.86	< 0.005	< 0.005	0.01	5.94
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	0.98
Vendor	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	0.00
Hauling	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	0.00

3.7. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	3.95	3.47	0.01	0.17	—	0.17	0.15	—	0.15	—	759	759	0.03	0.01	—	762
Dust From Material Movement	—	—	—	—	—	—	0.28	0.28	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.72	0.63	< 0.005	0.03	—	0.03	0.03	—	0.03	—	126	126	0.01	< 0.005	—	126

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.10	1.51	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.11	287
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.11	1.28	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	268	268	0.01	0.01	0.03	271
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	31.3	31.3	< 0.005	< 0.005	0.06	31.7
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.17	5.17	< 0.005	< 0.005	0.01	5.25
Vendor	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	0.00
Hauling	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	0.00

3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.70	5.50	0.01	0.21	—	0.21	0.19	—	0.19	—	1,005	1,005	0.04	0.01	—	1,008
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.86	1.00	< 0.005	0.04	—	0.04	0.04	—	0.04	—	166	166	0.01	< 0.005	—	167
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.56	0.59	9.38	0.00	0.00	1.62	1.62	0.00	0.38	0.38	—	1,755	1,755	0.07	0.06	6.92	1,781

Vendor	0.12	0.05	1.84	0.90	0.01	0.02	0.42	0.44	0.02	0.11	0.14	—	1,565	1,565	0.06	0.22	4.24	1,635
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.55	0.70	7.93	0.00	0.00	1.62	1.62	0.00	0.38	0.38	—	1,663	1,663	0.08	0.06	0.18	1,684
Vendor	0.12	0.05	1.92	0.92	0.01	0.02	0.42	0.44	0.02	0.11	0.14	—	1,566	1,566	0.06	0.22	0.11	1,632
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.29	3.49	0.00	0.00	0.67	0.67	0.00	0.16	0.16	—	708	708	0.03	0.03	1.25	717
Vendor	0.05	0.02	0.81	0.38	< 0.005	0.01	0.17	0.18	0.01	0.05	0.06	—	656	656	0.03	0.09	0.77	684
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.64	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.21	119
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	< 0.005	0.01	0.13	113
Hauling	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	0.00

3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.90	1.15	< 0.005	0.04	—	0.04	0.04	—	0.04	—	174	174	0.01	< 0.005	—	175
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.8	28.8	< 0.005	< 0.005	—	28.9
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	201	201	0.01	0.01	0.02	203

Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.4	23.4	< 0.005	< 0.005	0.04	23.8
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.88	3.88	< 0.005	< 0.005	0.01	3.93
Vendor	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	0.00
Hauling	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	0.00

3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	29.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134

Architect Coatings	—	29.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.23	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.4	34.4	< 0.005	< 0.005	—	34.5
Architectural Coatings	—	7.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.69	5.69	< 0.005	< 0.005	—	5.71
Architectural Coatings	—	1.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.12	1.88	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	351	351	0.01	0.01	1.38	356
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.59	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	333	333	0.02	0.01	0.04	337
Vendor	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	0.00

Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.04	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	86.9	86.9	< 0.005	< 0.005	0.15	88.1
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	14.4	14.4	< 0.005	< 0.005	0.03	14.6
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	4.84	3.79	15.5	56.2	0.21	0.21	13.7	13.9	0.20	3.52	3.72	—	21,742	21,742	0.93	1.87	70.4	22,392
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	4.84	3.79	15.5	56.2	0.21	0.21	13.7	13.9	0.20	3.52	3.72	—	21,742	21,742	0.93	1.87	70.4	22,392

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	4.81	3.77	16.4	50.2	0.20	0.21	13.7	13.9	0.20	3.52	3.72	—	21,173	21,173	0.94	1.89	1.82	21,762
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	4.81	3.77	16.4	50.2	0.20	0.21	13.7	13.9	0.20	3.52	3.72	—	21,173	21,173	0.94	1.89	1.82	21,762
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.87	0.68	3.02	9.46	0.04	0.04	2.48	2.51	0.04	0.64	0.67	—	3,531	3,531	0.16	0.31	5.03	3,633
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
Total	0.87	0.68	3.02	9.46	0.04	0.04	2.48	2.51	0.04	0.64	0.67	—	3,531	3,531	0.16	0.31	5.03	3,633

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	7,687	7,687	0.48	0.06	—	7,716

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	209	209	0.01	< 0.005	—	210
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	7,896	7,896	0.49	0.06	—	7,926
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	7,687	7,687	0.48	0.06	—	7,716
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	209	209	0.01	< 0.005	—	210
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	7,896	7,896	0.49	0.06	—	7,926
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	1,273	1,273	0.08	0.01	—	1,277
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	34.6	34.6	< 0.005	< 0.005	—	34.7
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,307	1,307	0.08	0.01	—	1,312

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,404	2,404	0.21	< 0.005	—	2,411
Parking Lot	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
Other Non-Asphalt Surfaces	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
Total	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,404	2,404	0.21	< 0.005	—	2,411
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,404	2,404	0.21	< 0.005	—	2,411
Parking Lot	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
Other Non-Asphalt Surfaces	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
Total	0.22	0.11	2.01	1.69	0.01	0.15	—	0.15	0.15	—	0.15	—	2,404	2,404	0.21	< 0.005	—	2,411
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	398	398	0.04	< 0.005	—	399
Parking Lot	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
Other Non-Asphalt Surfaces	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
Total	0.04	0.02	0.37	0.31	< 0.005	0.03	—	0.03	0.03	—	0.03	—	398	398	0.04	< 0.005	—	399

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	6.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.29	2.11	0.11	12.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	52.9	52.9	< 0.005	< 0.005	—	53.1
Total	2.29	9.23	0.11	12.9	< 0.005	0.02	—	0.02	0.02	—	0.02	—	52.9	52.9	< 0.005	< 0.005	—	53.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	6.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	7.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.29	0.26	0.01	1.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.00	6.00	< 0.005	< 0.005	—	6.02
Total	0.29	1.56	0.01	1.61	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.00	6.00	< 0.005	< 0.005	—	6.02

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	131	688	819	13.5	0.32	—	1,253
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	21.7	114	136	2.23	0.05	—	207
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	21.7	114	136	2.23	0.05	—	207

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	198	0.00	198	19.8	0.00	—	692
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	32.7	0.00	32.7	3.27	0.00	—	115
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	32.7	0.00	32.7	3.27	0.00	—	115

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.0	77.0

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.8	12.8
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.8	12.8

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	12/1/2023	2/12/2024	5.00	52.0	—
Site Preparation	Site Preparation	2/13/2024	2/23/2024	5.00	9.00	—
Grading	Grading	2/24/2024	4/23/2024	5.00	42.0	—
Building Construction	Building Construction	4/24/2024	11/22/2024	5.00	153	—
Paving	Paving	8/22/2024	10/20/2024	5.00	42.0	—
Architectural Coating	Architectural Coating	8/6/2024	12/15/2024	5.00	94.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	115	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—

Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	124	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	48.5	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	24.9	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	443,939	147,980	13,180

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	518,580	—
Site Preparation	—	—	13.5	0.00	—
Grading	—	—	126	0.00	—
Paving	0.00	0.00	0.00	0.00	5.04

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Industrial Park	0.00	0%
Parking Lot	3.75	100%
Other Non-Asphalt Surfaces	1.29	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	997	997	997	364,044	18,646	18,646	18,646	6,805,903
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	443,939	147,980	13,180

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Industrial Park	5,274,074	532	0.0330	0.0040	7,501,515
Parking Lot	143,209	532	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	68,440,519	1,106,385
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	367	—
Parking Lot	0.00	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	12.9	annual days of extreme heat
Extreme Precipitation	5.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.43	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	62.5
AQ-PM	77.1
AQ-DPM	76.2
Drinking Water	86.4
Lead Risk Housing	85.4

Pesticides	0.00
Toxic Releases	83.5
Traffic	58.1
Effect Indicators	—
CleanUp Sites	98.7
Groundwater	90.3
Haz Waste Facilities/Generators	98.2
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	55.2
Cardio-vascular	78.4
Low Birth Weights	88.4
Socioeconomic Factor Indicators	—
Education	75.1
Housing	59.7
Linguistic	59.4
Poverty	52.4
Unemployment	25.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	57.02553574
Employed	67.22699859
Median HI	40.20274605

Education	—
Bachelor's or higher	20.4029257
High school enrollment	100
Preschool enrollment	44.5528038
Transportation	—
Auto Access	19.90247658
Active commuting	6.287694084
Social	—
2-parent households	32.51636084
Voting	25.21493648
Neighborhood	—
Alcohol availability	40.30540228
Park access	45.69485436
Retail density	60.01539843
Supermarket access	36.9177467
Tree canopy	52.49582959
Housing	—
Homeownership	51.52059541
Housing habitability	32.32388041
Low-inc homeowner severe housing cost burden	16.98960606
Low-inc renter severe housing cost burden	45.78467856
Uncrowded housing	43.11561658
Health Outcomes	—
Insured adults	49.96791993
Arthritis	4.2
Asthma ER Admissions	34.5
High Blood Pressure	6.5

Cancer (excluding skin)	7.2
Asthma	86.2
Coronary Heart Disease	1.7
Chronic Obstructive Pulmonary Disease	27.0
Diagnosed Diabetes	3.0
Life Expectancy at Birth	42.6
Cognitively Disabled	44.8
Physically Disabled	16.6
Heart Attack ER Admissions	8.5
Mental Health Not Good	64.8
Chronic Kidney Disease	1.1
Obesity	42.2
Pedestrian Injuries	19.6
Physical Health Not Good	26.5
Stroke	6.5
Health Risk Behaviors	—
Binge Drinking	88.4
Current Smoker	79.5
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	55.0
Elderly	18.9
English Speaking	41.4
Foreign-born	35.8
Outdoor Workers	79.6

Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.8
Traffic Density	36.7
Traffic Access	23.0
Other Indices	—
Hardship	57.3
Other Decision Support	—
2016 Voting	30.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	89.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	13.49 ac site w/ 295,959 sf industrial building (footprint 288,959 sf or 6.63 ac), parking lot with 417 spaces, 78,889 sf landscaping, & assumed remainder ~1.29 acres hardscape.
Construction: Construction Phases	Per project applicant, construction to begin 12-1-2023 with demo lasting 52 days, site prep 9 days, grading 42 days, construction 153 days, paving 42 days, and coating 94 days. Existing ~213,430 sf bldg and ~305,150 sf existing paving to be demolished (total demo = ~518,580). Site anticipated to balance.
Operations: Vehicle Data	Per Trip Gen Memo, 3.37 trips/TSF/day. Percentages changed to 83.1% autos (H-W) & 16.9% trucks (W-O). Per SCAQMD W-O trip length changed to 40 miles.
Operations: Fleet Mix	Revised vehicle fleet mix per Trip Gen Memo of 83.1% Autos, 1.3% 2-Axle Trucks, 1.2% 3-Axle Trucks and 14.4% 4+ Axle Trucks.

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast	2023	HHDT	Aggregate	Aggregate	Gasoline	77.76705152	1555.963167	0	1.13577086	1135.77086	1904593.073	4463.059823	11986522.09	**6.29**	**HHDT**
South Coast	2023	HHDT	Aggregate	Aggregate	Diesel	88939.48335	1354183.938	0	1901.434302	1901434.302		11341687.62			
South Coast	2023	HHDT	Aggregate	Aggregate	Electricity	69.55210742	1090.269168	7969.44745	0	0		4465.990707			
South Coast	2023	HHDT	Aggregate	Aggregate	Natural Gas	9734.51825	62334.09461	0	108.4243363	108424.3363		635905.4264			
South Coast	2023	LDA	Aggregate	Aggregate	Gasoline	5370115.979	25014254.84	0	7560.140191	7560140.191	7688683.513	216250190.4	234402460.7	**30.49**	**LDA**
South Coast	2023	LDA	Aggregate	Aggregate	Diesel	15648.45784	65526.69936	0	11.94439033	11944.39033		486634.8854			
South Coast	2023	LDA	Aggregate	Aggregate	Electricity	241152.5368	1208859.723	4312325.17	0	0		11169438.62			
South Coast	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	136333.5236	563739.1202	971420.6342	116.5989322	116598.9322		6496196.814			
South Coast	2023	LDT1	Aggregate	Aggregate	Gasoline	499113.9009	2195668.394	0	753.4930394	753493.0394	754054.6567	18009866.74	18076073.23	**23.97**	**LDT1**
South Coast	2023	LDT1	Aggregate	Aggregate	Diesel	197.6298759	575.4909742	0	0.161278255	161.278255		3756.265001			
South Coast	2023	LDT1	Aggregate	Aggregate	Electricity	1012.723437	4715.252993	14723.34847	0	0		38135.23576			
South Coast	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	463.9603347	1918.475984	3964.563568	0.400339089	400.3390888		24314.99018			
South Coast	2023	LDT2	Aggregate	Aggregate	Gasoline	2429950.117	11422828.59	0	4340.074795	4340074.795	4365928.785	100292660.9	101911704.2	**23.34**	**LDT2**
South Coast	2023	LDT2	Aggregate	Aggregate	Diesel	7734.815855	37335.71589	0	10.96643985	10966.43985		337920.5463			
South Coast	2023	LDT2	Aggregate	Aggregate	Electricity	11160.73812	57317.98395	159502.5609	0	0		413130.7341			
South Coast	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	17128.65814	70827.00142	136848.0138	14.88755019	14887.55019		867992.1123			
South Coast	2023	LHDT1	Aggregate	Aggregate	Gasoline	200398.3929	2985637.46	0	589.944376	589944.376	795980.0519	7820670.654	12015327.21	**15.10**	**LHDT1**
South Coast	2023	LHDT1	Aggregate	Aggregate	Diesel	99896.36028	1256570.543	0	206.0356758	206035.6758		4194656.56			
South Coast	2023	LHDT2	Aggregate	Aggregate	Gasoline	31213.47663	465034.2937	0	99.14469838	99144.69838	206307.908	1156671.072	2985280.201	**14.47**	**LHDT2**
South Coast	2023	LHDT2	Aggregate	Aggregate	Diesel	43691.53059	549584.4908	0	107.1632097	107163.2097		1828609.129			
South Coast	2023	MCY	Aggregate	Aggregate	Gasoline	237586.076	475172.1521	0	36.88140998	36881.40998	36881.40998	1522726.619	1522726.619	**41.29**	**MCY**
South Coast	2023	MDV	Aggregate	Aggregate	Gasoline	1559902.035	7210563.701	0	3188.051046	3188051.046	3230287.568	60070040.07	61764195.73	**19.12**	**MDV**
South Coast	2023	MDV	Aggregate	Aggregate	Diesel	19613.50466	92462.53217	0	33.91368569	33913.68569		784655.9403			
South Coast	2023	MDV	Aggregate	Aggregate	Electricity	12017.75416	61732.39119	171855.0799	0	0		445125.2375			
South Coast	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	10053.44096	41570.97836	70940.44124	8.322835871	8322.835871		464374.4805			
South Coast	2023	MH	Aggregate	Aggregate	Gasoline	30468.55432	3048.074174	0	59.14587153	59145.87153	70446.99764	287687.7216	401829.5371	**5.70**	**MH**
South Coast	2023	MH	Aggregate	Aggregate	Diesel	11533.11741	1153.311741	0	11.30112611	11301.12611		114141.8155			
South Coast	2023	MHDT	Aggregate	Aggregate	Gasoline	25436.77287	508938.9517	0	266.1846594	266184.6594	808347.4856	1361855.942	6189907.424	**7.66**	**MHDT**
South Coast	2023	MHDT	Aggregate	Aggregate	Diesel	112753.1691	1384256.954	0	542.1628262	542162.8262		4826755.64			
South Coast	2023	MHDT	Aggregate	Aggregate	Electricity	60.14211345	769.7741807	1354.591964	0	0		1295.841104			
South Coast	2023	MHDT	Aggregate	Aggregate	Natural Gas	1405.746156	12603.45034	0	8.268140472	8268.140472		68507.0989			
South Coast	2023	OBUS	Aggregate	Aggregate	Gasoline	5457.340752	109190.4738	0	43.78040647	43780.40647	77110.24352	220170.8028	453397.9409	**5.88**	**OBUS**
South Coast	2023	OBUS	Aggregate	Aggregate	Diesel	2949.128306	37294.91051	0	33.32983706	33329.83706		233227.1381			
South Coast	2023	OBUS	Aggregate	Aggregate	Natural Gas	467.0036657	4156.332625	0	3.280062265	3280.062265		28665.48863			
South Coast	2023	SBUS	Aggregate	Aggregate	Gasoline	2711.533402	10846.13361	0	13.42826072	13428.26072	22892.86276	119164.9071	188479.341	**8.23**	**SBUS**
South Coast	2023	SBUS	Aggregate	Aggregate	Diesel	3377.128927	48900.82686	0	9.464602039	9464.602039		69271.73995			
South Coast	2023	SBUS	Aggregate	Aggregate	Electricity	3.674682915	53.20940862	49.36713892	0	0		42.69400814			
South Coast	2023	SBUS	Aggregate	Aggregate	Natural Gas	2976.329163	43097.24627	0	17.80624767	17806.24767		74753.64709			
South Coast	2023	UBUS	Aggregate	Aggregate	Gasoline	894.3697717	3577.479087	0	14.17067148	14170.67148	204710.9133	96960.55907	694841.5831	**3.39**	**UBUS**
South Coast	2023	UBUS	Aggregate	Aggregate	Diesel	14.61165815	58.44663261	0	0.262644403	262.644403		1749.021883			
South Coast	2023	UBUS	Aggregate	Aggregate	Electricity	58.03212573	232.1285029	5326.224873	0	0		2539.586791			
South Coast	2023	UBUS	Aggregate	Aggregate	Natural Gas	4957.576963	19830.30785	0	190.2775974	190277.5974		593592.4153			

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: Air Basin
Region: South Coast
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast	2024	HHDT	Aggregate	Aggregate	Gasoline	64.44258918	1289.367324	0	1.014953313	1014.953313	2024777.341	4089.563798	12241163.02	**6.05**	**HHDT**
South Coast	2024	HHDT	Aggregate	Aggregate	Diesel	92441.35478	1412165.896	0	1913.394963	1913394.963		11547992.76			
South Coast	2024	HHDT	Aggregate	Aggregate	Electricity	291.6455699	3957.931048	53675.68637	0	0		29968.60823			
South Coast	2024	HHDT	Aggregate	Aggregate	Natural Gas	10239.41118	65591.6649	0	110.3674239	110367.4239		659112.0885			
South Coast	2024	LDA	Aggregate	Aggregate	Gasoline	5306414.643	24694249.92	0	7344.088111	7344088.111	7477826.02	213709568	234427100.1	**31.35**	**LDA**
South Coast	2024	LDA	Aggregate	Aggregate	Diesel	14576.24539	60769.87324	0	10.8801639	10880.1639		447477.6987			
South Coast	2024	LDA	Aggregate	Aggregate	Electricity	278128.8376	1389682.584	5111363.117	0	0		13239042.59			
South Coast	2024	LDA	Aggregate	Aggregate	Plug-in Hybrid	148523.7719	614145.7966	1077276.451	122.8577446	122857.7446		7031011.891			
South Coast	2024	LDT1	Aggregate	Aggregate	Gasoline	490973.66	2160511.155	0	732.0519082	732051.9082	732790.8073	17788975.08	17880208.77	**24.40**	**LDT1**
South Coast	2024	LDT1	Aggregate	Aggregate	Diesel	178.9755587	511.7069897	0	0.143610092	143.6100917		3350.970633			
South Coast	2024	LDT1	Aggregate	Aggregate	Electricity	1222.38175	5792.038269	19502.00434	0	0		50512.52673			
South Coast	2024	LDT1	Aggregate	Aggregate	Plug-in Hybrid	719.1459798	2973.668627	6252.19918	0.595288961	595.288961		37370.18633			
South Coast	2024	LDT2	Aggregate	Aggregate	Gasoline	2478766.891	11657788.42	0	4349.789244	4349789.244	4378677.328	102696789.3	104694804	**23.91**	**LDT2**
South Coast	2024	LDT2	Aggregate	Aggregate	Diesel	8144.015434	39238.54602	0	11.30594953	11305.94953		354089.2658			
South Coast	2024	LDT2	Aggregate	Aggregate	Electricity	16093.72479	82313.84321	227422.9885	0	0		589052.7755			
South Coast	2024	LDT2	Aggregate	Aggregate	Plug-in Hybrid	21096.29549	87233.18184	170348.4264	17.58213479	17582.13479		1054872.659			
South Coast	2024	LHDT1	Aggregate	Aggregate	Gasoline	200171.2476	2982253.334	0	578.7247685	578724.7685	792458.1109	7891021.12	12336952.39	**15.57**	**LHDT1**
South Coast	2024	LHDT1	Aggregate	Aggregate	Diesel	103884.7559	1306739.542	0	213.7333424	213733.3424		4387648.579			
South Coast	2024	LHDT1	Aggregate	Aggregate	Electricity	772.5188678	10791.59936	32624.15974	0	0		58282.68619			
South Coast	2024	LHDT2	Aggregate	Aggregate	Gasoline	31062.46526	462784.4493	0	96.72139231	96721.39231	208303.4828	1155378.828	3095264.249	**14.86**	**LHDT2**
South Coast	2024	LHDT2	Aggregate	Aggregate	Diesel	45926.82058	577701.627	0	111.5820905	111582.0905		1925592.444			
South Coast	2024	LHDT2	Aggregate	Aggregate	Electricity	199.9520404	2646.759351	8006.869611	0	0		14292.97674			
South Coast	2024	MCY	Aggregate	Aggregate	Gasoline	242059.9929	484119.9858	0	37.44895514	37448.95514	37448.95514	1554780.429	1554780.429	**41.52**	**MCY**
South Coast	2024	MDV	Aggregate	Aggregate	Gasoline	1571312.1	7270009.961	0	3162.700535	3162700.535	3206338.183	60817091.34	62832018.9	**19.60**	**MDV**
South Coast	2024	MDV	Aggregate	Aggregate	Diesel	19826.89781	93051.64962	0	33.54860069	33548.60069		786624.2122			
South Coast	2024	MDV	Aggregate	Aggregate	Electricity	17569.44798	89870.84023	248334.7848	0	0		643216.8322			
South Coast	2024	MDV	Aggregate	Aggregate	Plug-in Hybrid	12690.57185	52475.51459	92596.30611	10.08904803	10089.04803		585086.5214			
South Coast	2024	MH	Aggregate	Aggregate	Gasoline	29244.94397	2925.664195	0	57.51222476	57512.22476	68984.14797	279544.6577	395398.9997	**5.73**	**MH**
South Coast	2024	MH	Aggregate	Aggregate	Diesel	11703.55798	1170.355798	0	11.47192321	11471.92321		115854.342			
South Coast	2024	MHDT	Aggregate	Aggregate	Gasoline	24845.17438	497102.249	0	256.9342026	256934.2026	812250.5213	1326417.556	6295601.951	**7.75**	**MHDT**
South Coast	2024	MHDT	Aggregate	Aggregate	Diesel	114693.757	1409921.86	0	546.7152883	546715.2883		4878223.739			
South Coast	2024	MHDT	Aggregate	Aggregate	Electricity	355.3876422	4781.870526	20310.12518	0	0		19393.49808			
South Coast	2024	MHDT	Aggregate	Aggregate	Natural Gas	1491.278079	13281.28453	0	8.601030453	8601.030453		71567.15805			
South Coast	2024	OBUS	Aggregate	Aggregate	Gasoline	5296.379398	105969.959	0	41.44060197	41440.60197	78066.51924	209991.62	473651.4166	**6.07**	**OBUS**
South Coast	2024	OBUS	Aggregate	Aggregate	Diesel	2997.3176	37996.11149	0	33.30106375	33301.06375		233646.4445			
South Coast	2024	OBUS	Aggregate	Aggregate	Electricity	11.86106715	237.3162316	941.3362619	0	0		895.192351			
South Coast	2024	OBUS	Aggregate	Aggregate	Natural Gas	480.7769521	4278.914873	0	3.324853528	3324.853528		29118.15975			
South Coast	2024	SBUS	Aggregate	Aggregate	Gasoline	2763.091965	11052.36786	0	13.6568139	13656.8139	40972.05843	121721.653	266076.6289	**6.49**	**SBUS**
South Coast	2024	SBUS	Aggregate	Aggregate	Diesel	3283.370627	47543.20668	0	9.104107226	9104.107226		66807.29386			
South Coast	2024	SBUS	Aggregate	Aggregate	Electricity	21.89425828	248.8609268	740.8107178	0	0		640.6727128			
South Coast	2024	SBUS	Aggregate	Aggregate	Natural Gas	3093.465789	44793.38463	0	18.21113731	18211.13731		76907.00926			
South Coast	2024	UBUS	Aggregate	Aggregate	Gasoline	894.3284655	3577.313862	0	13.89822542	13898.22542	201736.9577	96953.45183	696232.1909	**3.45**	**UBUS**
South Coast	2024	UBUS	Aggregate	Aggregate	Diesel	14.32857314	57.31429256	0	0.259550733	259.5507326		1721.679298			
South Coast	2024	UBUS	Aggregate	Aggregate	Electricity	109.3235246	437.2940985	19519.17282	0	0		9364.629999			
South Coast	2024	UBUS	Aggregate	Aggregate	Natural Gas	4918.59249	19674.36996	0	187.5791815	187579.1815		588192.4297			

APPENDIX C

HRA DATA AND AERMOD MODEL PRINTOUTS

Emission Assumptions **DPM** Emissions

19391 Whittier Blvd BP

Facility Operations

Buildout year: 2024

Emission Factors

1) Onsite Vehicle Emissions

a) Truck

(1) EMFAC2021 - PM2.5 used as surrogate for DPM

(a) Annual Meteorology

Temperature: 50 degF

Relative Humidity: 50%

(b) Calculations for Los Angeles County

(c) Truck Mix

4+ axle heavy-heavy duty diesel trucks (HHDT)

4 axle diesel trucks (MHDT)

2 axle diesel trucks (LHDT2)

(d) Onsite Truck Travel Speed: 10 mph

(e) Off-site Truck Travel Speed: 35 mph

(f) Idle speed: 0 mph

(g) Truck Idle time: 15 minutes per truck per day

2) Other Parameters

(a) Width of Truck Source: 8.5 feet

(b) Truck Operational Schedule 24 hours/day

(c) Height of Truck: 13.5 feet

(d) Release Height: 3.5 meters

19391 Whittier Blvd BP

Emission: DPM

Processes Modeled

Build-out: 2024

Onsite delivery traffic
Truck idling
Offsite delivery traffic

Facilities in Operation

Location	Truck type	Daily trucks
Project Site	HHDT	144
Project Site	MHDT	12
Project Site	LHDT2	13
Total		**169**

Delivery Schedule:

24 **hrs/day, 52 weeks/year**

Emission Factors 1 Year (2024)

Vehicle Class	Onsite Exhaust (g/mi)	Offsite Exhaust (g/mi)	Idle (g/hr)
HHDT	0.01217	0.00826	0.01537
MHDT	0.03833	0.00897	0.07273
LHDT2	0.05435	0.02193	0.77769

Onsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)	Total Daily Emissions for all Vehicles (g/sec)	
Along south of building to Southern Project Driveway	HHDT	0.01217	144	220.9	0.14	2.40E-01	2.78E-06	1.91E+00	5.30E-04	9.66E-05		
Along south of building to Southern Project Driveway	MHDT	0.03833	12	220.9	0.14	6.31E-02	7.30E-07	5.00E-01	1.39E-04	2.54E-05	**4.64E-06**	100% of trucks
Along south of building to Southern Project Driveway	LHDT2	0.05435	13	220.9	0.14	9.70E-02	1.12E-06	7.69E-01	2.14E-04	3.90E-05		

Truck Idling

Idle time 15 minutes

Building/Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Max Hourly Emissions (g/sec)	Max Hourly Emissions (lb/hr)	Total Daily Emissions (lbs/day)	Total Emissions (tons/yr)	Total Emissions (tons/yr)		
At loading docks & entrance/exit driveway	HHDT	0.01537	15	144	0.55	6.41E-06	5.08E-05	1.22E-03	2.22E-04			
At loading docks & entrance/exit driveway	MHDT	0.07273	15	12	0.22	2.53E-06	2.00E-05	4.81E-04	8.77E-05		3.82E-05	
At loading docks & entrance/exit driveway	LHDT2	0.77769	15	13	2.53	2.93E-05	2.32E-04	5.57E-03	1.02E-03		**7.64E-06**	per idling location
												(5 total)

Offsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Max Hourly Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)		
From project driveway s/b along Whittier Frontage Road	HHDT	0.00826	144	263.8	0.16	1.95E-01	2.26E-06	1.55E+00	4.29E-04	7.84E-05	100% of trucks	
From project driveway s/b along Whittier Frontage Road	MHDT	0.00897	12	263.8	0.16	1.76E-02	2.04E-07	1.40E-01	3.88E-05	7.09E-06	**3.00E-06**	
From project driveway s/b along Whittier Frontage Road	LHDT2	0.02193	13	263.8	0.16	4.67E-02	5.41E-07	3.70E-01	1.03E-04	1.88E-05		
South on Whittier Blvd to Washington Blvd	HHDT	0.00826	144	940.8	0.58	6.95E-01	8.05E-06	5.51E+00	1.53E-03	2.79E-04	50% of trucks	
South on Whittier Blvd to Washington Blvd	MHDT	0.00897	12	940.8	0.58	6.29E-02	7.28E-07	4.99E-01	1.39E-04	2.53E-05	**5.35E-06**	
South on Whittier Blvd to Washington Blvd	LHDT2	0.02193	13	940.8	0.58	1.67E-01	1.93E-06	1.32E+00	3.67E-04	6.70E-05		
Northbound along Whittier Blvd	HHDT	0.00826	144	1076.5	0.67	7.96E-01	9.21E-06	6.31E+00	1.75E-03	3.20E-04	50% of trucks	
Northbound along Whittier Blvd	MHDT	0.00897	12	1076.5	0.67	7.20E-02	8.33E-07	5.71E-01	1.58E-04	2.89E-05	**6.12E-06**	
Northbound along Whittier Blvd	LHDT2	0.02193	13	1076.5	0.67	1.91E-01	2.21E-06	1.51E+00	4.20E-04	7.66E-05		

19391 Whittier Blvd BP		**Emission:**	**DPM**									
Processes Modeled		**Build-out:**	**2024**									
Onsite delivery traffic												
Truck idling												
Offsite delivery traffic												
Facilities in Operation												
Location	**Truck type**	**Daily trucks**										
Project Site	HHDT	144										
Project Site	MHDT	12										
Project Site	LHDT2	13										
Total		**169**										
Delivery Schedule:												
	24	**hrs/day, 52weeks/year**										
Emission Factors 2 Year (2025&2026)	**Onsite Exhaust**	**Offsite Exhaust**	**Idle**									
Vehicle Class	**(g/mi)**	**(g/mi)**	**(g/hr)**									
HHDT	0.01163	0.00785	0.01428									
MHDT	0.02941	0.00714	0.05503									
LHDT2	0.04865	0.02001	0.77753									
Onsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day (in and out)**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**	**Total Daily Emissions for all Vehicles (g/sec)**	
Along south of building to Southern Project Driveway	HHDT	0.01163	144	220.9	0.14	2.30E-01	2.66E-06	1.82E+00	5.06E-04	9.23E-05		
Along south of building to Southern Project Driveway	MHDT	0.02941	12	220.9	0.14	4.84E-02	5.61E-07	3.84E-01	1.07E-04	1.95E-05	**4.22E-06**	100% of trucks
Along south of building to Southern Project Driveway	LHDT2	0.04865	13	220.9	0.14	8.68E-02	1.00E-06	6.88E-01	1.91E-04	3.49E-05		
Truck Idling	Idle time		15	minutes								
Building/Location	**Truck Type**	**Emission Factor (g/idle-hour)**	**Idling Time (min)**	**Daily Trucks**	**Total Emissions (g/day)**	**Max Hourly Emissions (g/sec)**	**Max Hourly Emissions (lb/hr)**	**Total Daily Emissions (lbs/day)**	**Total Emissions (tons/yr)**	**Total Emissions (tons/yr)**		
At loading docks & entrance/exit driveway	HHDT	0.01428	15	144	0.51	5.95E-06	4.72E-05	1.13E-03	2.07E-04			
At loading docks & entrance/exit driveway	MHDT	0.05503	15	12	0.17	1.91E-06	1.52E-05	3.64E-04	6.64E-05		3.71E-05	
At loading docks & entrance/exit driveway	LHDT2	0.77753	15	13	2.53	2.92E-05	2.32E-04	5.57E-03	1.02E-03		**7.42E-06**	per idling location
												(5 total)
Offsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Max Hourly Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**		
From project driveway s/b along Whittier Frontage Road	HHDT	0.00785	144	263.8	0.16	1.85E-01	2.14E-06	1.47E+00	4.08E-04	7.44E-05	100% of trucks	
From project driveway s/b along Whittier Frontage Road	MHDT	0.00714	12	263.8	0.16	1.40E-02	1.63E-07	1.11E-01	3.09E-05	5.65E-06	**2.80E-06**	
From project driveway s/b along Whittier Frontage Road	LHDT2	0.02001	13	263.8	0.16	4.26E-02	4.93E-07	3.38E-01	9.39E-05	1.71E-05		
South on Whittier Blvd to Washington Blvd	HHDT	0.00785	144	940.8	0.58	6.60E-01	7.64E-06	5.24E+00	1.45E-03	2.65E-04	50% of trucks	
South on Whittier Blvd to Washington Blvd	MHDT	0.00714	12	940.8	0.58	5.01E-02	5.80E-07	3.97E-01	1.10E-04	2.01E-05	**4.99E-06**	
South on Whittier Blvd to Washington Blvd	LHDT2	0.02001	13	940.8	0.58	1.52E-01	1.76E-06	1.21E+00	3.35E-04	6.11E-05		
Northbound along Whittier Blvd	HHDT	0.00785	144	1076.5	0.67	7.56E-01	8.75E-06	5.99E+00	1.66E-03	3.04E-04	50% of trucks	
Northbound along Whittier Blvd	MHDT	0.00714	12	1076.5	0.67	5.73E-02	6.63E-07	4.54E-01	1.26E-04	2.30E-05	**5.71E-06**	
Northbound along Whittier Blvd	LHDT2	0.02001	13	1076.5	0.67	1.74E-01	2.01E-06	1.38E+00	3.83E-04	6.99E-05		

19391 Whittier Blvd BP		Emission:	DPM									
Processes Modeled		**Build-out:**	**2024**									
Onsite delivery traffic												
Truck idling												
Offsite delivery traffic												
Facilities in Operation												
Location	**Truck type**	**Daily trucks**										
Project Site	HHDT	144										
Project Site	MHDT	12										
Project Site	LHDT2	13										
Total		**169**										
Delivery Schedule:												
	24	**hrs/day, 52weeks/year**										
Emission Factors 14 Year 2027-2040	**Onsite Exhaust**	**Offsite Exhaust**	**Idle**									
Vehicle Class	**(g/mi)**	**(g/mi)**	**(g/hr)**									
HHDT	0.00948	0.00644	0.01107									
MHDT	0.00993	0.00305	0.01857									
LHDT2	0.03871	0.01716	0.76775									

Onsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day (in and out)	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)	Total Daily Emissions for all Vehicles (g/sec)	
Along south of building to Southern Project Driveway	HHDT	0.00948	144	220.9	0.14	1.87E-01	2.17E-06	1.49E+00	4.13E-04	7.53E-05		
Along south of building to Southern Project Driveway	MHDT	0.00993	12	220.9	0.14	1.64E-02	1.89E-07	1.30E-01	3.60E-05	6.57E-06	**3.16E-06**	100% of trucks
Along south of building to Southern Project Driveway	LHDT2	0.03871	13	220.9	0.14	6.90E-02	7.99E-07	5.48E-01	1.52E-04	2.78E-05		

Truck Idling

Idle time: 15 minutes

Building/Location	Truck Type	Emission Factor (g/idle-hour)	Idling Time (min)	Daily Trucks	Total Emissions (g/day)	Max Hourly Emissions (g/sec)	Max Hourly Emissions (lb/hr)	Total Daily Emissions (lbs/day)	Total Emissions (tons/yr)	Total Emissions (tons/yr)		
At loading docks & entrance/exit driveway	HHDT	0.01107	15	144	0.40	4.61E-06	3.66E-05	8.78E-04	1.60E-04			
At loading docks & entrance/exit driveway	MHDT	0.01857	15	12	0.06	6.45E-07	5.11E-06	1.23E-04	2.24E-05		3.41E-05	
At loading docks & entrance/exit driveway	LHDT2	0.76775	15	13	2.50	2.89E-05	2.29E-04	5.50E-03	1.00E-03		**6.83E-06**	per idling location
												(5 total)

Offsite Roadway Links Modeled

Link	Truck Type	Emission Factor (g/mi)	Trips per day	Length (m)	Length (mi)	Daily Emissions Over the Link (g/day)	Emissions Over the Link (g/sec)	Max Hourly Emissions Over Link (lb/hr)	Daily Emissions (lbs/day)	Annual Avg Emissions Over Link (tons/yr)		
From project driveway s/b along Whittier Frontage Road	HHDT	0.00644	144	263.8	0.16	1.52E-01	1.76E-06	1.21E+00	3.35E-04	6.11E-05	100% of trucks	
From project driveway s/b along Whittier Frontage Road	MHDT	0.00305	12	263.8	0.16	6.01E-03	6.95E-08	4.76E-02	1.32E-05	2.41E-06	**2.25E-06**	
From project driveway s/b along Whittier Frontage Road	LHDT2	0.01716	13	263.8	0.16	3.66E-02	4.23E-07	2.90E-01	8.05E-05	1.47E-05		
South on Whittier Blvd to Washington Blvd	HHDT	0.00644	144	940.8	0.58	5.42E-01	6.27E-06	4.30E+00	1.19E-03	2.18E-04	50% of trucks	
South on Whittier Blvd to Washington Blvd	MHDT	0.00305	12	940.8	0.58	2.14E-02	2.48E-07	1.70E-01	4.72E-05	8.61E-06	**4.02E-06**	
South on Whittier Blvd to Washington Blvd	LHDT2	0.01716	13	940.8	0.58	1.30E-01	1.51E-06	1.03E+00	2.87E-04	5.24E-05		
Northbound along Whittier Blvd	HHDT	0.00644	144	1076.5	0.67	6.20E-01	7.18E-06	4.92E+00	1.37E-03	2.49E-04	50% of trucks	
Northbound along Whittier Blvd	MHDT	0.00305	12	1076.5	0.67	2.45E-02	2.84E-07	1.94E-01	5.40E-05	9.85E-06	**4.59E-06**	
Northbound along Whittier Blvd	LHDT2	0.01716	13	1076.5	0.67	1.49E-01	1.73E-06	1.18E+00	3.29E-04	6.00E-05		

19391 Whittier Blvd BP		**Emission:**	**DPM**									
Processes Modeled		**Build-out:**	**2024**									
Onsite delivery traffic												
Truck idling												
Offsite delivery traffic												
Facilities in Operation												
Location	**Truck type**	**Daily trucks**										
Project Site	HHDT	144										
Project Site	MHDT	12										
Project Site	LHDT2	13										
Total		**169**										
Delivery Schedule:												
	24	**hrs/day, 52weeks/year**										
Emission Factors 14 Year 2041-2054	**Onsite Exhaust**	**Offsite Exhaust**	**Idle**									
Vehicle Class	**(g/mi)**	**(g/mi)**	**(g/hr)**									
HHDT	0.00818	0.00564	0.00973									
MHDT	0.00320	0.00151	0.00731									
LHDT2	0.03537	0.01654	0.76173									
Onsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day (in and out)**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**	**Total Daily Emissions for all Vehicles (g/sec)**	
Along south of building to Southern Project Driveway	HHDT	0.00818	144	220.9	0.14	1.62E-01	1.87E-06	1.28E+00	3.56E-04	6.50E-05		
Along south of building to Southern Project Driveway	MHDT	0.00320	12	220.9	0.14	5.27E-03	6.10E-08	4.18E-02	1.16E-05	2.12E-06	**2.66E-06**	100% of trucks
Along south of building to Southern Project Driveway	LHDT2	0.03537	13	220.9	0.14	6.31E-02	7.30E-07	5.00E-01	1.39E-04	2.54E-05		
Truck Idling	Idle time		15	minutes								
Building/Location	**Truck Type**	**Emission Factor (g/idle-hour)**	**Idling Time (min)**	**Daily Trucks**	**Total Emissions (g/day)**	**Max Hourly Emissions (g/sec)**	**Max Hourly Emissions (lb/hr)**	**Total Daily Emissions (lbs/day)**	**Total Emissions (tons/yr)**	**Total Emissions (tons/yr)**		
At loading docks & entrance/exit driveway	HHDT	0.00973	15	144	0.35	4.05E-06	3.21E-05	7.72E-04	1.41E-04			
At loading docks & entrance/exit driveway	MHDT	0.00731	15	12	0.02	2.54E-07	2.01E-06	4.83E-05	8.81E-06		3.30E-05	
At loading docks & entrance/exit driveway	LHDT2	0.76173	15	13	2.48	2.87E-05	2.27E-04	5.45E-03	9.95E-04		**6.59E-06**	per idling location
												(5 total)
Offsite Roadway Links Modeled												
Link	**Truck Type**	**Emission Factor (g/mi)**	**Trips per day**	**Length (m)**	**Length (mi)**	**Daily Emissions Over the Link (g/day)**	**Emissions Over the Link (g/sec)**	**Max Hourly Emissions Over Link (lb/hr)**	**Daily Emissions (lbs/day)**	**Annual Avg Emissions Over Link (tons/yr)**		
From project driveway s/b along Whittier Frontage Road	HHDT	0.00564	144	263.8	0.16	1.33E-01	1.54E-06	1.05E+00	2.93E-04	5.35E-05	100% of trucks	
From project driveway s/b along Whittier Frontage Road	MHDT	0.00151	12	263.8	0.16	2.98E-03	3.45E-08	2.36E-02	6.56E-06	1.20E-06	**1.98E-06**	
From project driveway s/b along Whittier Frontage Road	LHDT2	0.01654	13	263.8	0.16	3.52E-02	4.08E-07	2.79E-01	7.76E-05	1.42E-05		
South on Whittier Blvd to Washington Blvd	HHDT	0.00564	144	940.8	0.58	4.74E-01	5.49E-06	3.76E+00	1.05E-03	1.91E-04	50% of trucks	
South on Whittier Blvd to Washington Blvd	MHDT	0.00151	12	940.8	0.58	1.06E-02	1.23E-07	8.42E-02	2.34E-05	4.27E-06	**1.41E-07**	
South on Whittier Blvd to Washington Blvd	LHDT2	0.01654	13	940.8	0.58	1.26E-01	1.45E-06	9.97E-01	2.77E-04	5.05E-05		
Northbound along Whittier Blvd	HHDT	0.00564	144	1076.5	0.67	5.43E-01	6.28E-06	4.31E+00	1.20E-03	2.18E-04	50% of trucks	
Northbound along Whittier Blvd	MHDT	0.00151	12	1076.5	0.67	1.21E-02	1.41E-07	9.63E-02	2.68E-05	4.88E-06	**4.04E-06**	
Northbound along Whittier Blvd	LHDT2	0.01654	13	1076.5	0.67	1.44E-01	1.66E-06	1.14E+00	3.17E-04	5.78E-05		

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 6/26/2023
** File: C:\Lakes\AERMOD View\19391 Whittier Blvd BP OY 2024\19391 Whittier Blvd BP OY 2024.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE 19391 Whittier Blvd BP
   TITLETWO DPM Concentrations OY 2024
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "19391 Whittier Blvd BP OY 2024.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      403193.640  3759565.730       66.820
** DESCRSRC Truck idling Location
   LOCATION STCK2        POINT      403256.045  3759598.705       67.440
** DESCRSRC Truck idling Location
   LOCATION STCK3        POINT      403214.561  3759575.303       66.930
** DESCRSRC Truck idling Location
   LOCATION STCK4        POINT      403285.474  3759616.787       67.600
** DESCRSRC Truck idling Location
   LOCATION STCK5        POINT      403325.895  3759622.106       67.810
** DESCRSRC Truck idling Location
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-site truck travel
```

```
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 4.64E-06
** Elevated
** Building Height = 10.67
** SZINIT = 4.96
** Nodes = 6
** 403377.081, 3759656.927, 68.97, 3.50, 4.00
** 403368.321, 3759649.002, 68.27, 3.50, 4.00
** 403361.646, 3759641.493, 68.07, 3.50, 4.00
** 403353.721, 3759633.985, 68.07, 3.50, 4.00
** 403323.270, 3759617.299, 67.71, 3.50, 4.00
** 403189.785, 3759541.797, 65.87, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000467     VOLUME   403373.895 3759654.046 68.80
   LOCATION L0000468     VOLUME   403367.608 3759648.200 68.24
   LOCATION L0000469     VOLUME   403361.900 3759641.779 68.19
   LOCATION L0000470     VOLUME   403355.687 3759635.848 68.25
   LOCATION L0000471     VOLUME   403348.563 3759631.158 68.15
   LOCATION L0000472     VOLUME   403341.029 3759627.030 68.08
   LOCATION L0000473     VOLUME   403333.495 3759622.902 67.96
   LOCATION L0000474     VOLUME   403325.961 3759618.774 67.80
   LOCATION L0000475     VOLUME   403318.463 3759614.581 67.70
   LOCATION L0000476     VOLUME   403310.986 3759610.351 67.69
   LOCATION L0000477     VOLUME   403303.508 3759606.122 67.65
   LOCATION L0000478     VOLUME   403296.031 3759601.892 67.57
   LOCATION L0000479     VOLUME   403288.553 3759597.663 67.52
   LOCATION L0000480     VOLUME   403281.076 3759593.433 67.47
   LOCATION L0000481     VOLUME   403273.598 3759589.204 67.42
   LOCATION L0000482     VOLUME   403266.120 3759584.974 67.36
   LOCATION L0000483     VOLUME   403258.643 3759580.745 67.21
   LOCATION L0000484     VOLUME   403251.165 3759576.515 67.10
   LOCATION L0000485     VOLUME   403243.688 3759572.286 67.02
   LOCATION L0000486     VOLUME   403236.210 3759568.056 66.91
   LOCATION L0000487     VOLUME   403228.733 3759563.827 66.83
   LOCATION L0000488     VOLUME   403221.255 3759559.597 66.77
   LOCATION L0000489     VOLUME   403213.778 3759555.368 66.73
   LOCATION L0000490     VOLUME   403206.300 3759551.138 66.47
   LOCATION L0000491     VOLUME   403198.823 3759546.909 66.17
   LOCATION L0000492     VOLUME   403191.345 3759542.679 65.89
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Offsite from Project dwy s/b along Whitter Frontage Rd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.0E-06
** Elevated
```

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** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 4
** 403383.146, 3759663.541, 69.95, 3.50, 4.00
** 403507.316, 3759446.613, 68.09, 3.50, 4.00
** 403511.242, 3759446.613, 68.15, 3.50, 4.00
** 403520.076, 3759451.030, 68.52, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000493     VOLUME   403385.280 3759659.813 70.03
   LOCATION L0000494     VOLUME   403389.548 3759652.357 69.98
   LOCATION L0000495     VOLUME   403393.816 3759644.901 70.08
   LOCATION L0000496     VOLUME   403398.083 3759637.446 70.40
   LOCATION L0000497     VOLUME   403402.351 3759629.990 70.43
   LOCATION L0000498     VOLUME   403406.619 3759622.534 70.34
   LOCATION L0000499     VOLUME   403410.886 3759615.078 70.21
   LOCATION L0000500     VOLUME   403415.154 3759607.622 70.06
   LOCATION L0000501     VOLUME   403419.422 3759600.167 69.93
   LOCATION L0000502     VOLUME   403423.689 3759592.711 69.84
   LOCATION L0000503     VOLUME   403427.957 3759585.255 69.78
   LOCATION L0000504     VOLUME   403432.225 3759577.799 69.72
   LOCATION L0000505     VOLUME   403436.492 3759570.343 69.64
   LOCATION L0000506     VOLUME   403440.760 3759562.888 69.55
   LOCATION L0000507     VOLUME   403445.028 3759555.432 69.44
   LOCATION L0000508     VOLUME   403449.295 3759547.976 69.28
   LOCATION L0000509     VOLUME   403453.563 3759540.520 69.16
   LOCATION L0000510     VOLUME   403457.831 3759533.065 69.03
   LOCATION L0000511     VOLUME   403462.098 3759525.609 68.88
   LOCATION L0000512     VOLUME   403466.366 3759518.153 68.78
   LOCATION L0000513     VOLUME   403470.634 3759510.697 68.77
   LOCATION L0000514     VOLUME   403474.901 3759503.241 68.75
   LOCATION L0000515     VOLUME   403479.169 3759495.786 68.72
   LOCATION L0000516     VOLUME   403483.437 3759488.330 68.63
   LOCATION L0000517     VOLUME   403487.705 3759480.874 68.52
   LOCATION L0000518     VOLUME   403491.972 3759473.418 68.41
   LOCATION L0000519     VOLUME   403496.240 3759465.962 68.30
   LOCATION L0000520     VOLUME   403500.508 3759458.507 68.20
   LOCATION L0000521     VOLUME   403504.775 3759451.051 68.09
   LOCATION L0000522     VOLUME   403510.793 3759446.613 68.07
   LOCATION L0000523     VOLUME   403518.524 3759450.254 68.28
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC South on Whittier Blvd to Washington Blvd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 5.35E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
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** Nodes = 14
** 403526.824, 3759455.741, 68.65, 3.50, 4.00
** 403561.451, 3759395.666, 67.72, 3.50, 4.00
** 403590.654, 3759346.021, 66.66, 3.50, 4.00
** 403619.440, 3759297.627, 66.39, 3.50, 4.00
** 403665.747, 3759216.276, 64.97, 3.50, 4.00
** 403687.024, 3759180.815, 65.01, 3.50, 4.00
** 403697.453, 3759163.710, 64.84, 3.50, 4.00
** 403700.374, 3759155.367, 64.87, 3.50, 4.00
** 403700.791, 3759147.023, 64.93, 3.50, 4.00
** 403696.619, 3759138.679, 64.56, 3.50, 4.00
** 403687.441, 3759131.587, 64.03, 3.50, 4.00
** 403661.575, 3759130.753, 63.12, 3.50, 4.00
** 403635.293, 3759128.250, 62.14, 3.50, 4.00
** 403132.336, 3759031.102, 52.34, 3.50, 4.00
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   LOCATION L0000524     VOLUME   403528.969 3759452.019 68.52
   LOCATION L0000525     VOLUME   403533.259 3759444.576 68.43
   LOCATION L0000526     VOLUME   403537.549 3759437.134 68.33
   LOCATION L0000527     VOLUME   403541.839 3759429.691 68.23
   LOCATION L0000528     VOLUME   403546.129 3759422.248 68.12
   LOCATION L0000529     VOLUME   403550.419 3759414.805 68.02
   LOCATION L0000530     VOLUME   403554.709 3759407.362 67.93
   LOCATION L0000531     VOLUME   403558.999 3759399.919 67.88
   LOCATION L0000532     VOLUME   403563.318 3759392.492 67.86
   LOCATION L0000533     VOLUME   403567.673 3759385.088 67.79
   LOCATION L0000534     VOLUME   403572.029 3759377.683 67.69
   LOCATION L0000535     VOLUME   403576.385 3759370.278 67.54
   LOCATION L0000536     VOLUME   403580.740 3759362.873 67.43
   LOCATION L0000537     VOLUME   403585.096 3759355.469 67.29
   LOCATION L0000538     VOLUME   403589.452 3759348.064 67.11
   LOCATION L0000539     VOLUME   403593.834 3759340.675 66.91
   LOCATION L0000540     VOLUME   403598.226 3759333.291 66.71
   LOCATION L0000541     VOLUME   403602.617 3759325.908 66.55
   LOCATION L0000542     VOLUME   403607.009 3759318.525 66.41
   LOCATION L0000543     VOLUME   403611.401 3759311.141 66.32
   LOCATION L0000544     VOLUME   403615.793 3759303.758 66.26
   LOCATION L0000545     VOLUME   403620.161 3759296.361 66.20
   LOCATION L0000546     VOLUME   403624.410 3759288.895 66.08
   LOCATION L0000547     VOLUME   403628.660 3759281.429 65.92
   LOCATION L0000548     VOLUME   403632.910 3759273.963 65.87
   LOCATION L0000549     VOLUME   403637.160 3759266.497 65.80
   LOCATION L0000550     VOLUME   403641.410 3759259.031 65.70
   LOCATION L0000551     VOLUME   403645.660 3759251.565 65.55
   LOCATION L0000552     VOLUME   403649.909 3759244.099 65.38
   LOCATION L0000553     VOLUME   403654.159 3759236.633 65.20
   LOCATION L0000554     VOLUME   403658.409 3759229.167 65.08
   LOCATION L0000555     VOLUME   403662.659 3759221.701 65.03
   LOCATION L0000556     VOLUME   403666.955 3759214.262 65.06
   LOCATION L0000557     VOLUME   403671.375 3759206.896 65.18
   LOCATION L0000558     VOLUME   403675.795 3759199.529 65.30
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LOCATION L0000559     VOLUME   403680.215 3759192.163 65.28
LOCATION L0000560     VOLUME   403684.635 3759184.796 65.20
LOCATION L0000561     VOLUME   403689.079 3759177.444 65.11
LOCATION L0000562     VOLUME   403693.552 3759170.109 65.01
LOCATION L0000563     VOLUME   403697.816 3759162.676 64.98
LOCATION L0000564     VOLUME   403700.416 3759154.521 64.94
LOCATION L0000565     VOLUME   403700.306 3759146.054 64.83
LOCATION L0000566     VOLUME   403696.345 3759138.468 64.60
LOCATION L0000567     VOLUME   403689.548 3759133.215 64.32
LOCATION L0000568     VOLUME   403681.516 3759131.396 64.05
LOCATION L0000569     VOLUME   403672.929 3759131.119 63.79
LOCATION L0000570     VOLUME   403664.343 3759130.842 63.54
LOCATION L0000571     VOLUME   403655.780 3759130.201 63.27
LOCATION L0000572     VOLUME   403647.228 3759129.386 62.98
LOCATION L0000573     VOLUME   403638.676 3759128.572 62.66
LOCATION L0000574     VOLUME   403630.194 3759127.265 62.32
LOCATION L0000575     VOLUME   403621.759 3759125.636 61.99
LOCATION L0000576     VOLUME   403613.325 3759124.006 61.67
LOCATION L0000577     VOLUME   403604.890 3759122.377 61.37
LOCATION L0000578     VOLUME   403596.455 3759120.748 61.06
LOCATION L0000579     VOLUME   403588.020 3759119.119 60.80
LOCATION L0000580     VOLUME   403579.585 3759117.489 60.59
LOCATION L0000581     VOLUME   403571.150 3759115.860 60.42
LOCATION L0000582     VOLUME   403562.715 3759114.231 60.30
LOCATION L0000583     VOLUME   403554.280 3759112.602 60.14
LOCATION L0000584     VOLUME   403545.845 3759110.973 59.97
LOCATION L0000585     VOLUME   403537.411 3759109.343 59.86
LOCATION L0000586     VOLUME   403528.976 3759107.714 59.74
LOCATION L0000587     VOLUME   403520.541 3759106.085 59.62
LOCATION L0000588     VOLUME   403512.106 3759104.456 59.52
LOCATION L0000589     VOLUME   403503.671 3759102.826 59.41
LOCATION L0000590     VOLUME   403495.236 3759101.197 59.29
LOCATION L0000591     VOLUME   403486.801 3759099.568 59.11
LOCATION L0000592     VOLUME   403478.366 3759097.939 58.94
LOCATION L0000593     VOLUME   403469.931 3759096.310 58.75
LOCATION L0000594     VOLUME   403461.496 3759094.680 58.50
LOCATION L0000595     VOLUME   403453.062 3759093.051 58.26
LOCATION L0000596     VOLUME   403444.627 3759091.422 58.02
LOCATION L0000597     VOLUME   403436.192 3759089.793 57.76
LOCATION L0000598     VOLUME   403427.757 3759088.163 57.55
LOCATION L0000599     VOLUME   403419.322 3759086.534 57.37
LOCATION L0000600     VOLUME   403410.887 3759084.905 57.32
LOCATION L0000601     VOLUME   403402.452 3759083.276 57.24
LOCATION L0000602     VOLUME   403394.017 3759081.647 57.13
LOCATION L0000603     VOLUME   403385.582 3759080.017 57.09
LOCATION L0000604     VOLUME   403377.147 3759078.388 57.03
LOCATION L0000605     VOLUME   403368.713 3759076.759 56.95
LOCATION L0000606     VOLUME   403360.278 3759075.130 56.89
LOCATION L0000607     VOLUME   403351.843 3759073.500 56.84
LOCATION L0000608     VOLUME   403343.408 3759071.871 56.78
LOCATION L0000609     VOLUME   403334.973 3759070.242 56.72
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   LOCATION L0000610     VOLUME   403326.538 3759068.613 56.65
   LOCATION L0000611     VOLUME   403318.103 3759066.984 56.57
   LOCATION L0000612     VOLUME   403309.668 3759065.354 56.37
   LOCATION L0000613     VOLUME   403301.233 3759063.725 56.17
   LOCATION L0000614     VOLUME   403292.799 3759062.096 55.97
   LOCATION L0000615     VOLUME   403284.364 3759060.467 55.70
   LOCATION L0000616     VOLUME   403275.929 3759058.837 55.41
   LOCATION L0000617     VOLUME   403267.494 3759057.208 55.13
   LOCATION L0000618     VOLUME   403259.059 3759055.579 54.93
   LOCATION L0000619     VOLUME   403250.624 3759053.950 54.75
   LOCATION L0000620     VOLUME   403242.189 3759052.321 54.55
   LOCATION L0000621     VOLUME   403233.754 3759050.691 54.50
   LOCATION L0000622     VOLUME   403225.319 3759049.062 54.47
   LOCATION L0000623     VOLUME   403216.884 3759047.433 54.40
   LOCATION L0000624     VOLUME   403208.450 3759045.804 54.23
   LOCATION L0000625     VOLUME   403200.015 3759044.174 54.01
   LOCATION L0000626     VOLUME   403191.580 3759042.545 53.80
   LOCATION L0000627     VOLUME   403183.145 3759040.916 53.54
   LOCATION L0000628     VOLUME   403174.710 3759039.287 53.26
   LOCATION L0000629     VOLUME   403166.275 3759037.658 53.01
   LOCATION L0000630     VOLUME   403157.840 3759036.028 52.81
   LOCATION L0000631     VOLUME   403149.405 3759034.399 52.62
   LOCATION L0000632     VOLUME   403140.970 3759032.770 52.43
   LOCATION L0000633     VOLUME   403132.535 3759031.141 52.25
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Northbound along Whitter Blvd
** PREFIX
** Length of Side = 10.11
** Configuration = Adjacent
** Emission Rate = 6.12E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 7
** 403541.907, 3759460.234, 69.09, 3.50, 4.70
** 403548.291, 3759465.199, 69.37, 3.50, 4.70
** 403540.134, 3759487.187, 69.75, 3.50, 4.70
** 403492.611, 3759570.175, 70.72, 3.50, 4.70
** 403452.890, 3759640.041, 71.88, 3.50, 4.70
** 403398.984, 3759724.801, 72.44, 3.50, 4.70
** 403007.874, 3760386.371, 71.03, 3.50, 4.70
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   LOCATION L0000634     VOLUME   403545.899 3759463.339 69.32
   LOCATION L0000635     VOLUME   403545.826 3759471.842 69.48
   LOCATION L0000636     VOLUME   403542.308 3759481.325 69.66
   LOCATION L0000637     VOLUME   403538.215 3759490.539 69.93
   LOCATION L0000638     VOLUME   403533.188 3759499.317 70.12
   LOCATION L0000639     VOLUME   403528.162 3759508.094 70.18
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LOCATION L0000640     VOLUME   403523.135 3759516.871 70.13
LOCATION L0000641     VOLUME   403518.109 3759525.649 70.26
LOCATION L0000642     VOLUME   403513.082 3759534.426 70.53
LOCATION L0000643     VOLUME   403508.056 3759543.204 70.83
LOCATION L0000644     VOLUME   403503.030 3759551.981 71.13
LOCATION L0000645     VOLUME   403498.003 3759560.759 71.07
LOCATION L0000646     VOLUME   403492.977 3759569.536 71.01
LOCATION L0000647     VOLUME   403487.976 3759578.328 70.99
LOCATION L0000648     VOLUME   403482.977 3759587.121 71.05
LOCATION L0000649     VOLUME   403477.977 3759595.914 71.14
LOCATION L0000650     VOLUME   403472.978 3759604.708 71.24
LOCATION L0000651     VOLUME   403467.979 3759613.501 71.43
LOCATION L0000652     VOLUME   403462.980 3759622.294 71.63
LOCATION L0000653     VOLUME   403457.981 3759631.087 71.77
LOCATION L0000654     VOLUME   403452.982 3759639.880 71.85
LOCATION L0000655     VOLUME   403447.562 3759648.419 71.87
LOCATION L0000656     VOLUME   403442.134 3759656.954 71.94
LOCATION L0000657     VOLUME   403436.705 3759665.489 72.05
LOCATION L0000658     VOLUME   403431.277 3759674.024 72.20
LOCATION L0000659     VOLUME   403425.849 3759682.559 72.31
LOCATION L0000660     VOLUME   403420.421 3759691.094 72.30
LOCATION L0000661     VOLUME   403414.993 3759699.629 72.34
LOCATION L0000662     VOLUME   403409.565 3759708.164 72.42
LOCATION L0000663     VOLUME   403404.137 3759716.699 72.47
LOCATION L0000664     VOLUME   403398.723 3759725.243 72.48
LOCATION L0000665     VOLUME   403393.576 3759733.950 72.47
LOCATION L0000666     VOLUME   403388.428 3759742.657 72.44
LOCATION L0000667     VOLUME   403383.281 3759751.364 72.37
LOCATION L0000668     VOLUME   403378.133 3759760.071 72.29
LOCATION L0000669     VOLUME   403372.986 3759768.778 72.20
LOCATION L0000670     VOLUME   403367.838 3759777.485 72.12
LOCATION L0000671     VOLUME   403362.691 3759786.192 72.06
LOCATION L0000672     VOLUME   403357.543 3759794.899 72.03
LOCATION L0000673     VOLUME   403352.396 3759803.606 72.02
LOCATION L0000674     VOLUME   403347.248 3759812.313 71.99
LOCATION L0000675     VOLUME   403342.101 3759821.020 71.94
LOCATION L0000676     VOLUME   403336.953 3759829.727 71.89
LOCATION L0000677     VOLUME   403331.806 3759838.434 71.81
LOCATION L0000678     VOLUME   403326.658 3759847.141 71.78
LOCATION L0000679     VOLUME   403321.511 3759855.848 71.74
LOCATION L0000680     VOLUME   403316.364 3759864.555 71.66
LOCATION L0000681     VOLUME   403311.216 3759873.262 71.53
LOCATION L0000682     VOLUME   403306.069 3759881.969 71.43
LOCATION L0000683     VOLUME   403300.921 3759890.677 71.36
LOCATION L0000684     VOLUME   403295.774 3759899.384 71.35
LOCATION L0000685     VOLUME   403290.626 3759908.091 71.32
LOCATION L0000686     VOLUME   403285.479 3759916.798 71.27
LOCATION L0000687     VOLUME   403280.331 3759925.505 71.20
LOCATION L0000688     VOLUME   403275.184 3759934.212 71.19
LOCATION L0000689     VOLUME   403270.036 3759942.919 71.22
LOCATION L0000690     VOLUME   403264.889 3759951.626 71.20
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   LOCATION L0000691     VOLUME   403259.741 3759960.333 71.10
   LOCATION L0000692     VOLUME   403254.594 3759969.040 71.01
   LOCATION L0000693     VOLUME   403249.446 3759977.747 70.98
   LOCATION L0000694     VOLUME   403244.299 3759986.454 70.96
   LOCATION L0000695     VOLUME   403239.151 3759995.161 70.92
   LOCATION L0000696     VOLUME   403234.004 3760003.868 70.88
   LOCATION L0000697     VOLUME   403228.856 3760012.575 70.84
   LOCATION L0000698     VOLUME   403223.709 3760021.282 70.80
   LOCATION L0000699     VOLUME   403218.561 3760029.989 70.75
   LOCATION L0000700     VOLUME   403213.414 3760038.696 70.67
   LOCATION L0000701     VOLUME   403208.267 3760047.403 70.56
   LOCATION L0000702     VOLUME   403203.119 3760056.110 70.47
   LOCATION L0000703     VOLUME   403197.972 3760064.817 70.46
   LOCATION L0000704     VOLUME   403192.824 3760073.525 70.49
   LOCATION L0000705     VOLUME   403187.677 3760082.232 70.47
   LOCATION L0000706     VOLUME   403182.529 3760090.939 70.45
   LOCATION L0000707     VOLUME   403177.382 3760099.646 70.42
   LOCATION L0000708     VOLUME   403172.234 3760108.353 70.40
   LOCATION L0000709     VOLUME   403167.087 3760117.060 70.47
   LOCATION L0000710     VOLUME   403161.939 3760125.767 70.47
   LOCATION L0000711     VOLUME   403156.792 3760134.474 70.40
   LOCATION L0000712     VOLUME   403151.644 3760143.181 70.29
   LOCATION L0000713     VOLUME   403146.497 3760151.888 70.32
   LOCATION L0000714     VOLUME   403141.349 3760160.595 70.34
   LOCATION L0000715     VOLUME   403136.202 3760169.302 70.30
   LOCATION L0000716     VOLUME   403131.054 3760178.009 70.19
   LOCATION L0000717     VOLUME   403125.907 3760186.716 70.07
   LOCATION L0000718     VOLUME   403120.759 3760195.423 69.98
   LOCATION L0000719     VOLUME   403115.612 3760204.130 69.95
   LOCATION L0000720     VOLUME   403110.464 3760212.837 70.08
   LOCATION L0000721     VOLUME   403105.317 3760221.544 70.15
   LOCATION L0000722     VOLUME   403100.170 3760230.251 70.18
   LOCATION L0000723     VOLUME   403095.022 3760238.958 70.24
   LOCATION L0000724     VOLUME   403089.875 3760247.665 70.34
   LOCATION L0000725     VOLUME   403084.727 3760256.373 70.40
   LOCATION L0000726     VOLUME   403079.580 3760265.080 70.43
   LOCATION L0000727     VOLUME   403074.432 3760273.787 70.55
   LOCATION L0000728     VOLUME   403069.285 3760282.494 70.74
   LOCATION L0000729     VOLUME   403064.137 3760291.201 70.91
   LOCATION L0000730     VOLUME   403058.990 3760299.908 71.04
   LOCATION L0000731     VOLUME   403053.842 3760308.615 71.16
   LOCATION L0000732     VOLUME   403048.695 3760317.322 71.30
   LOCATION L0000733     VOLUME   403043.547 3760326.029 71.36
   LOCATION L0000734     VOLUME   403038.400 3760334.736 71.25
   LOCATION L0000735     VOLUME   403033.252 3760343.443 71.12
   LOCATION L0000736     VOLUME   403028.105 3760352.150 70.98
   LOCATION L0000737     VOLUME   403022.957 3760360.857 70.90
   LOCATION L0000738     VOLUME   403017.810 3760369.564 71.03
   LOCATION L0000739     VOLUME   403012.662 3760378.271 71.07
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
```

```
   SRCPARAM STCK1         7.64E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK2         7.64E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK3         7.64E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK4         7.64E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK5         7.64E-06     3.500   366.000      51.9       0.1
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000467     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000468     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000469     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000470     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000471     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000472     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000473     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000474     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000475     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000476     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000477     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000478     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000479     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000480     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000481     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000482     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000483     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000484     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000485     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000486     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000487     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000488     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000489     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000490     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000491     0.0000001785      3.50      4.00      4.96
   SRCPARAM L0000492     0.0000001785      3.50      4.00      4.96
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0000493     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000494     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000495     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000496     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000497     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000498     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000499     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000500     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000501     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000502     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000503     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000504     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000505     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000506     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000507     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000508     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000509     0.00000009677      3.50      4.00      1.63
```

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   SRCPARAM L0000510     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000511     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000512     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000513     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000514     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000515     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000516     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000517     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000518     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000519     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000520     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000521     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000522     0.00000009677      3.50      4.00      1.63
   SRCPARAM L0000523     0.00000009677      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000524     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000525     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000526     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000527     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000528     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000529     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000530     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000531     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000532     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000533     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000534     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000535     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000536     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000537     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000538     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000539     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000540     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000541     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000542     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000543     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000544     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000545     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000546     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000547     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000548     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000549     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000550     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000551     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000552     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000553     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000554     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000555     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000556     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000557     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000558     0.00000004864      3.50      4.00      1.63
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SRCPARAM L0000559     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000560     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000561     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000562     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000563     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000564     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000565     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000566     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000567     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000568     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000569     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000570     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000571     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000572     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000573     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000574     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000575     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000576     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000577     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000578     0.00000004864      3.50      4.00      1.63
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SRCPARAM L0000580     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000581     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000582     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000583     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000584     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000585     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000586     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000587     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000588     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000589     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000590     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000591     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000592     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000593     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000594     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000595     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000596     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000597     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000598     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000599     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000600     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000601     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000602     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000603     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000604     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000605     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000606     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000607     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000608     0.00000004864      3.50      4.00      1.63
SRCPARAM L0000609     0.00000004864      3.50      4.00      1.63
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   SRCPARAM L0000610     0.00000004864      3.50      4.00      1.63
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   SRCPARAM L0000612     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000613     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000614     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000615     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000616     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000617     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000618     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000619     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000620     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000621     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000622     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000623     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000624     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000625     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000626     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000627     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000628     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000629     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000630     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000631     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000632     0.00000004864      3.50      4.00      1.63
   SRCPARAM L0000633     0.00000004864      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000634     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000635     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000636     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000637     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000638     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000639     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000640     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000641     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000642     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000643     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000644     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000645     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000646     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000647     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000648     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000649     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000650     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000651     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000652     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000653     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000654     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000655     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000656     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000657     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000658     0.00000005774      3.50      4.70      1.63
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SRCPARAM L0000659     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000660     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000661     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000662     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000663     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000664     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000665     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000666     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000667     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000668     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000669     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000670     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000671     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000672     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000673     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000674     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000675     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000676     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000677     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000678     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000679     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000680     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000681     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000682     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000683     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000684     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000685     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000686     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000687     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000688     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000689     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000690     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000691     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000692     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000693     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000694     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000695     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000696     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000697     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000698     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000699     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000700     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000701     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000702     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000703     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000704     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000705     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000706     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000707     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000708     0.00000005774      3.50      4.70      1.63
SRCPARAM L0000709     0.00000005774      3.50      4.70      1.63
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   SRCPARAM L0000710     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000711     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000712     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000713     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000714     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000715     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000716     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000717     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000718     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000719     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000720     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000721     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000722     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000723     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000724     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000725     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000726     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000727     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000728     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000729     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000730     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000731     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000732     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000733     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000734     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000735     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000736     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000737     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000738     0.00000005774      3.50      4.70      1.63
   SRCPARAM L0000739     0.00000005774      3.50      4.70      1.63
** ------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
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BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67

BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK4          10.67    10.67    10.67    10.67    10.67    10.67

BUILDHGT STCK5          10.67    10.67    10.67    10.67     0.00     0.00
BUILDHGT STCK5          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK5          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK5          10.67    10.67    10.67    10.67     0.00     0.00
BUILDHGT STCK5          10.67    10.67    10.67    10.67    10.67    10.67
BUILDHGT STCK5          10.67    10.67    10.67    10.67    10.67    10.67

BUILDWID STCK1         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK1         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK1         260.52   253.86   243.28   246.87   242.96   231.66
BUILDWID STCK1         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK1         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK1         260.52   253.86   243.28   246.87   242.96   231.66

BUILDWID STCK2         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK2         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK2         260.52   253.86   243.28   246.87   242.96   231.66
BUILDWID STCK2         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK2         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK2         260.52   253.86   243.28   246.87   242.96   231.66

BUILDWID STCK3         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK3         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK3         260.52   253.86   243.28   246.87   242.96   231.66
BUILDWID STCK3         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK3         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK3         260.52   253.86   243.28   246.87   242.96   231.66

BUILDWID STCK4         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK4         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK4         260.52   253.86   243.28   246.87   242.96   231.66
BUILDWID STCK4         226.00   215.18   198.68   178.77   153.42   124.12
BUILDWID STCK4         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK4         260.52   253.86   243.28   246.87   242.96   231.66

BUILDWID STCK5         226.00   215.18   198.68   178.77     0.00     0.00
BUILDWID STCK5         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK5         260.52   253.86   243.28   246.87   242.96   231.66
BUILDWID STCK5         226.00   215.18   198.68   178.77     0.00     0.00
BUILDWID STCK5         147.89   182.21   211.00   233.37   250.11   259.25
BUILDWID STCK5         260.52   253.86   243.28   246.87   242.96   231.66
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BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00

XBADJ    STCK1           -18.55   -25.03   -30.75   -35.54   -39.24   -41.98
XBADJ    STCK1           -50.16   -56.82   -61.76   -77.50   -92.58  -104.85
XBADJ    STCK1          -113.93  -119.55  -121.54  -151.31  -178.11  -199.50
XBADJ    STCK1          -214.83  -225.08  -228.50  -224.98  -214.62  -201.31
XBADJ    STCK1          -196.71  -186.13  -169.90  -148.51  -122.60   -93.84
XBADJ    STCK1           -64.84   -33.87    -2.58     3.41    -4.11   -11.50

XBADJ    STCK2           -61.85   -77.35   -90.51  -100.91  -108.25  -112.51
XBADJ    STCK2          -120.08  -124.01  -124.17  -133.23  -139.95  -142.41
XBADJ    STCK2          -140.55  -134.41  -124.20  -141.67  -156.48  -166.53
XBADJ    STCK2          -171.52  -172.76  -168.74  -159.61  -145.62  -130.77
XBADJ    STCK2          -126.79  -118.94  -107.49   -92.77   -75.23   -56.27
XBADJ    STCK2           -38.22   -19.01     0.07    -6.22   -25.74   -44.47

XBADJ    STCK3           -31.60   -41.18   -49.50   -56.31   -61.42   -64.88
```

XBADJ	STCK3	-73.09	-79.09	-82.68	-96.44	-108.96	-118.18
XBADJ	STCK3	-123.81	-125.67	-123.72	-149.47	-172.32	-189.93
XBADJ	STCK3	-201.77	-208.94	-209.75	-204.20	-192.44	-178.41
XBADJ	STCK3	-173.78	-163.87	-148.98	-129.57	-106.21	-80.50
XBADJ	STCK3	-54.96	-27.75	-0.41	1.58	-9.90	-21.07
XBADJ	STCK4	-84.78	-104.42	-120.88	-133.68	-142.41	-147.03
XBADJ	STCK4	-153.92	-156.13	-153.59	-159.07	-161.41	-158.85
XBADJ	STCK4	-151.46	-139.47	-123.24	-134.73	-143.77	-148.44
XBADJ	STCK4	-148.60	-145.70	-138.37	-126.84	-111.45	-96.25
XBADJ	STCK4	-92.95	-86.83	-78.07	-66.94	-53.77	-39.84
XBADJ	STCK4	-27.31	-13.95	-0.88	-13.16	-38.44	-62.56
XBADJ	STCK5	-97.03	-123.24	-145.70	-163.73	0.00	0.00
XBADJ	STCK5	-193.72	-196.86	-194.01	-197.95	-197.57	-191.19
XBADJ	STCK5	-179.00	-161.37	-138.84	-143.56	-145.55	-143.12
XBADJ	STCK5	-136.34	-126.87	-113.55	-96.78	0.00	0.00
XBADJ	STCK5	-53.15	-46.10	-37.65	-28.06	-17.61	-7.49
XBADJ	STCK5	0.23	7.95	14.72	-4.33	-36.66	-67.88
YBADJ	STCK1	-35.50	-15.01	5.51	24.55	42.84	59.48
YBADJ	STCK1	77.36	87.00	94.00	98.14	100.03	98.88
YBADJ	STCK1	94.72	87.69	79.67	73.27	64.65	54.07
YBADJ	STCK1	35.50	15.01	-5.51	-24.55	-42.84	-59.48
YBADJ	STCK1	-77.36	-87.00	-94.00	-98.14	-100.03	-98.88
YBADJ	STCK1	-94.72	-87.69	-79.67	-73.27	-64.65	-54.07
YBADJ	STCK2	20.23	32.36	43.07	51.16	57.70	62.13
YBADJ	STCK2	67.72	65.37	61.03	54.84	47.70	39.12
YBADJ	STCK2	29.35	18.69	9.13	3.35	-2.53	-8.34
YBADJ	STCK2	-20.23	-32.36	-43.07	-51.16	-57.70	-62.13
YBADJ	STCK2	-67.72	-65.37	-61.03	-54.84	-47.70	-39.12
YBADJ	STCK2	-29.35	-18.69	-9.13	-3.35	2.53	8.34
YBADJ	STCK3	-16.56	1.38	18.84	34.42	48.96	61.65
YBADJ	STCK3	75.52	81.21	84.43	85.08	83.88	80.13
YBADJ	STCK3	73.94	65.51	56.76	50.34	42.39	33.15
YBADJ	STCK3	16.56	-1.38	-18.84	-34.42	-48.96	-61.65
YBADJ	STCK3	-75.52	-81.21	-84.43	-85.08	-83.88	-80.13
YBADJ	STCK3	-73.94	-65.51	-56.76	-50.34	-42.39	-33.15
YBADJ	STCK4	46.06	53.82	59.50	62.07	62.76	61.18
YBADJ	STCK4	60.79	52.66	42.94	31.91	20.64	8.74
YBADJ	STCK4	-3.42	-15.48	-25.39	-30.48	-34.65	-37.76
YBADJ	STCK4	-46.06	-53.82	-59.50	-62.07	-62.76	-61.18
YBADJ	STCK4	-60.79	-52.66	-42.94	-31.91	-20.64	-8.74
YBADJ	STCK4	3.42	15.48	25.39	30.48	34.65	37.76
YBADJ	STCK5	84.95	89.98	91.85	89.62	0.00	0.00
YBADJ	STCK5	69.61	54.44	37.62	19.65	1.82	-16.07
YBADJ	STCK5	-33.48	-49.86	-63.06	-70.28	-75.38	-78.18

```
   YBADJ    STCK5          -84.95   -89.98   -91.85   -89.62     0.00     0.00
   YBADJ    STCK5          -69.61   -54.44   -37.62   -19.65    -1.82    16.07
   YBADJ    STCK5           33.48    49.86    63.06    70.28    75.38    78.18

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "19391 Whittier Blvd BP OY 2024.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC"
   PROFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL"
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "19391 WHITTIER BLVD BP OY 2024.AD\PE00GALL.PLT" 31
   SUMMFILE "19391 Whittier Blvd BP OY 2024.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            7 Warning Message(s)
 A Total of            0 Informational Message(s)
```

```
   ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     408        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     409        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     410        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     411        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     412        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
ME W186     896       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used         0.50
ME W187     896       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

**********************************
*** SETUP Finishes Successfully ***
**********************************


*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                ***        18:08:08
                                                                                                          PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

** Model Options Selected:
     * Model Uses Regulatory DEFAULT Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE  =  F
     * Model Uses NO WET DEPLETION. WETDPLT  =  F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   278 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes:    278 Source(s);       1 Source Group(s); and     450 Receptor(s)
```

```
              with:      5 POINT(s), including
                         0 POINTCAP(s) and      0 POINTHOR(s)
               and:    273 VOLUME source(s)
               and:      0 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 RLINE/RLINEXT source(s)
               and:      0 OPENPIT source(s)
               and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
               and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
        Model Outputs Tables of PERIOD Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
        Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      4.0 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   19391 Whittier Blvd BP OY 2024.err
**File for Summary of Results:   19391 Whittier Blvd BP OY 2024.sum

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                      ***        18:08:08
                                                                                                               PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                   BASE     STACK   STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                      VARY BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

STCK1           0   0.76400E-05  403193.6 3759565.7    66.8     3.50   366.00    51.90     0.10    YES     YES   NO
```

STCK2	0	0.76400E-05	403256.0	3759598.7	67.4	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK3	0	0.76400E-05	403214.6	3759575.3	66.9	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK4	0	0.76400E-05	403285.5	3759616.8	67.6	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK5	0	0.76400E-05	403325.9	3759622.1	67.8	3.50	366.00	51.90	0.10	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000467	0	0.17850E-06	403373.9	3759654.0	68.8	3.50	4.00	4.96	YES	
L0000468	0	0.17850E-06	403367.6	3759648.2	68.2	3.50	4.00	4.96	YES	
L0000469	0	0.17850E-06	403361.9	3759641.8	68.2	3.50	4.00	4.96	YES	
L0000470	0	0.17850E-06	403355.7	3759635.8	68.2	3.50	4.00	4.96	YES	
L0000471	0	0.17850E-06	403348.6	3759631.2	68.1	3.50	4.00	4.96	YES	
L0000472	0	0.17850E-06	403341.0	3759627.0	68.1	3.50	4.00	4.96	YES	
L0000473	0	0.17850E-06	403333.5	3759622.9	68.0	3.50	4.00	4.96	YES	
L0000474	0	0.17850E-06	403326.0	3759618.8	67.8	3.50	4.00	4.96	YES	
L0000475	0	0.17850E-06	403318.5	3759614.6	67.7	3.50	4.00	4.96	YES	
L0000476	0	0.17850E-06	403311.0	3759610.4	67.7	3.50	4.00	4.96	YES	
L0000477	0	0.17850E-06	403303.5	3759606.1	67.6	3.50	4.00	4.96	YES	
L0000478	0	0.17850E-06	403296.0	3759601.9	67.6	3.50	4.00	4.96	YES	
L0000479	0	0.17850E-06	403288.6	3759597.7	67.5	3.50	4.00	4.96	YES	
L0000480	0	0.17850E-06	403281.1	3759593.4	67.5	3.50	4.00	4.96	YES	
L0000481	0	0.17850E-06	403273.6	3759589.2	67.4	3.50	4.00	4.96	YES	
L0000482	0	0.17850E-06	403266.1	3759585.0	67.4	3.50	4.00	4.96	YES	
L0000483	0	0.17850E-06	403258.6	3759580.7	67.2	3.50	4.00	4.96	YES	
L0000484	0	0.17850E-06	403251.2	3759576.5	67.1	3.50	4.00	4.96	YES	
L0000485	0	0.17850E-06	403243.7	3759572.3	67.0	3.50	4.00	4.96	YES	
L0000486	0	0.17850E-06	403236.2	3759568.1	66.9	3.50	4.00	4.96	YES	
L0000487	0	0.17850E-06	403228.7	3759563.8	66.8	3.50	4.00	4.96	YES	
L0000488	0	0.17850E-06	403221.3	3759559.6	66.8	3.50	4.00	4.96	YES	
L0000489	0	0.17850E-06	403213.8	3759555.4	66.7	3.50	4.00	4.96	YES	
L0000490	0	0.17850E-06	403206.3	3759551.1	66.5	3.50	4.00	4.96	YES	
L0000491	0	0.17850E-06	403198.8	3759546.9	66.2	3.50	4.00	4.96	YES	
L0000492	0	0.17850E-06	403191.3	3759542.7	65.9	3.50	4.00	4.96	YES	
L0000493	0	0.96770E-07	403385.3	3759659.8	70.0	3.50	4.00	1.63	YES	
L0000494	0	0.96770E-07	403389.5	3759652.4	70.0	3.50	4.00	1.63	YES	
L0000495	0	0.96770E-07	403393.8	3759644.9	70.1	3.50	4.00	1.63	YES	
L0000496	0	0.96770E-07	403398.1	3759637.4	70.4	3.50	4.00	1.63	YES	
L0000497	0	0.96770E-07	403402.4	3759630.0	70.4	3.50	4.00	1.63	YES	
L0000498	0	0.96770E-07	403406.6	3759622.5	70.3	3.50	4.00	1.63	YES	
L0000499	0	0.96770E-07	403410.9	3759615.1	70.2	3.50	4.00	1.63	YES	

L0000500	0	0.96770E-07	403415.2	3759607.6	70.1	3.50	4.00	1.63	YES
L0000501	0	0.96770E-07	403419.4	3759600.2	69.9	3.50	4.00	1.63	YES
L0000502	0	0.96770E-07	403423.7	3759592.7	69.8	3.50	4.00	1.63	YES
L0000503	0	0.96770E-07	403428.0	3759585.3	69.8	3.50	4.00	1.63	YES
L0000504	0	0.96770E-07	403432.2	3759577.8	69.7	3.50	4.00	1.63	YES
L0000505	0	0.96770E-07	403436.5	3759570.3	69.6	3.50	4.00	1.63	YES
L0000506	0	0.96770E-07	403440.8	3759562.9	69.5	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000507	0	0.96770E-07	403445.0	3759555.4	69.4	3.50	4.00	1.63	YES	
L0000508	0	0.96770E-07	403449.3	3759548.0	69.3	3.50	4.00	1.63	YES	
L0000509	0	0.96770E-07	403453.6	3759540.5	69.2	3.50	4.00	1.63	YES	
L0000510	0	0.96770E-07	403457.8	3759533.1	69.0	3.50	4.00	1.63	YES	
L0000511	0	0.96770E-07	403462.1	3759525.6	68.9	3.50	4.00	1.63	YES	
L0000512	0	0.96770E-07	403466.4	3759518.2	68.8	3.50	4.00	1.63	YES	
L0000513	0	0.96770E-07	403470.6	3759510.7	68.8	3.50	4.00	1.63	YES	
L0000514	0	0.96770E-07	403474.9	3759503.2	68.8	3.50	4.00	1.63	YES	
L0000515	0	0.96770E-07	403479.2	3759495.8	68.7	3.50	4.00	1.63	YES	
L0000516	0	0.96770E-07	403483.4	3759488.3	68.6	3.50	4.00	1.63	YES	
L0000517	0	0.96770E-07	403487.7	3759480.9	68.5	3.50	4.00	1.63	YES	
L0000518	0	0.96770E-07	403492.0	3759473.4	68.4	3.50	4.00	1.63	YES	
L0000519	0	0.96770E-07	403496.2	3759466.0	68.3	3.50	4.00	1.63	YES	
L0000520	0	0.96770E-07	403500.5	3759458.5	68.2	3.50	4.00	1.63	YES	
L0000521	0	0.96770E-07	403504.8	3759451.1	68.1	3.50	4.00	1.63	YES	
L0000522	0	0.96770E-07	403510.8	3759446.6	68.1	3.50	4.00	1.63	YES	
L0000523	0	0.96770E-07	403518.5	3759450.3	68.3	3.50	4.00	1.63	YES	
L0000524	0	0.48640E-07	403529.0	3759452.0	68.5	3.50	4.00	1.63	YES	
L0000525	0	0.48640E-07	403533.3	3759444.6	68.4	3.50	4.00	1.63	YES	
L0000526	0	0.48640E-07	403537.5	3759437.1	68.3	3.50	4.00	1.63	YES	
L0000527	0	0.48640E-07	403541.8	3759429.7	68.2	3.50	4.00	1.63	YES	
L0000528	0	0.48640E-07	403546.1	3759422.2	68.1	3.50	4.00	1.63	YES	
L0000529	0	0.48640E-07	403550.4	3759414.8	68.0	3.50	4.00	1.63	YES	
L0000530	0	0.48640E-07	403554.7	3759407.4	67.9	3.50	4.00	1.63	YES	
L0000531	0	0.48640E-07	403559.0	3759399.9	67.9	3.50	4.00	1.63	YES	
L0000532	0	0.48640E-07	403563.3	3759392.5	67.9	3.50	4.00	1.63	YES	
L0000533	0	0.48640E-07	403567.7	3759385.1	67.8	3.50	4.00	1.63	YES	
L0000534	0	0.48640E-07	403572.0	3759377.7	67.7	3.50	4.00	1.63	YES	
L0000535	0	0.48640E-07	403576.4	3759370.3	67.5	3.50	4.00	1.63	YES	
L0000536	0	0.48640E-07	403580.7	3759362.9	67.4	3.50	4.00	1.63	YES	

L0000537	0	0.48640E-07	403585.1	3759355.5	67.3	3.50	4.00	1.63	YES	
L0000538	0	0.48640E-07	403589.5	3759348.1	67.1	3.50	4.00	1.63	YES	
L0000539	0	0.48640E-07	403593.8	3759340.7	66.9	3.50	4.00	1.63	YES	
L0000540	0	0.48640E-07	403598.2	3759333.3	66.7	3.50	4.00	1.63	YES	
L0000541	0	0.48640E-07	403602.6	3759325.9	66.5	3.50	4.00	1.63	YES	
L0000542	0	0.48640E-07	403607.0	3759318.5	66.4	3.50	4.00	1.63	YES	
L0000543	0	0.48640E-07	403611.4	3759311.1	66.3	3.50	4.00	1.63	YES	
L0000544	0	0.48640E-07	403615.8	3759303.8	66.3	3.50	4.00	1.63	YES	
L0000545	0	0.48640E-07	403620.2	3759296.4	66.2	3.50	4.00	1.63	YES	
L0000546	0	0.48640E-07	403624.4	3759288.9	66.1	3.50	4.00	1.63	YES	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000547	0	0.48640E-07	403628.7	3759281.4	65.9	3.50	4.00	1.63	YES	
L0000548	0	0.48640E-07	403632.9	3759274.0	65.9	3.50	4.00	1.63	YES	
L0000549	0	0.48640E-07	403637.2	3759266.5	65.8	3.50	4.00	1.63	YES	
L0000550	0	0.48640E-07	403641.4	3759259.0	65.7	3.50	4.00	1.63	YES	
L0000551	0	0.48640E-07	403645.7	3759251.6	65.5	3.50	4.00	1.63	YES	
L0000552	0	0.48640E-07	403649.9	3759244.1	65.4	3.50	4.00	1.63	YES	
L0000553	0	0.48640E-07	403654.2	3759236.6	65.2	3.50	4.00	1.63	YES	
L0000554	0	0.48640E-07	403658.4	3759229.2	65.1	3.50	4.00	1.63	YES	
L0000555	0	0.48640E-07	403662.7	3759221.7	65.0	3.50	4.00	1.63	YES	
L0000556	0	0.48640E-07	403667.0	3759214.3	65.1	3.50	4.00	1.63	YES	
L0000557	0	0.48640E-07	403671.4	3759206.9	65.2	3.50	4.00	1.63	YES	
L0000558	0	0.48640E-07	403675.8	3759199.5	65.3	3.50	4.00	1.63	YES	
L0000559	0	0.48640E-07	403680.2	3759192.2	65.3	3.50	4.00	1.63	YES	
L0000560	0	0.48640E-07	403684.6	3759184.8	65.2	3.50	4.00	1.63	YES	
L0000561	0	0.48640E-07	403689.1	3759177.4	65.1	3.50	4.00	1.63	YES	
L0000562	0	0.48640E-07	403693.6	3759170.1	65.0	3.50	4.00	1.63	YES	
L0000563	0	0.48640E-07	403697.8	3759162.7	65.0	3.50	4.00	1.63	YES	
L0000564	0	0.48640E-07	403700.4	3759154.5	64.9	3.50	4.00	1.63	YES	
L0000565	0	0.48640E-07	403700.3	3759146.1	64.8	3.50	4.00	1.63	YES	
L0000566	0	0.48640E-07	403696.3	3759138.5	64.6	3.50	4.00	1.63	YES	
L0000567	0	0.48640E-07	403689.5	3759133.2	64.3	3.50	4.00	1.63	YES	
L0000568	0	0.48640E-07	403681.5	3759131.4	64.0	3.50	4.00	1.63	YES	
L0000569	0	0.48640E-07	403672.9	3759131.1	63.8	3.50	4.00	1.63	YES	
L0000570	0	0.48640E-07	403664.3	3759130.8	63.5	3.50	4.00	1.63	YES	
L0000571	0	0.48640E-07	403655.8	3759130.2	63.3	3.50	4.00	1.63	YES	
L0000572	0	0.48640E-07	403647.2	3759129.4	63.0	3.50	4.00	1.63	YES	
L0000573	0	0.48640E-07	403638.7	3759128.6	62.7	3.50	4.00	1.63	YES	

L0000574	0	0.48640E-07	403630.2	3759127.3	62.3	3.50	4.00	1.63	YES
L0000575	0	0.48640E-07	403621.8	3759125.6	62.0	3.50	4.00	1.63	YES
L0000576	0	0.48640E-07	403613.3	3759124.0	61.7	3.50	4.00	1.63	YES
L0000577	0	0.48640E-07	403604.9	3759122.4	61.4	3.50	4.00	1.63	YES
L0000578	0	0.48640E-07	403596.5	3759120.7	61.1	3.50	4.00	1.63	YES
L0000579	0	0.48640E-07	403588.0	3759119.1	60.8	3.50	4.00	1.63	YES
L0000580	0	0.48640E-07	403579.6	3759117.5	60.6	3.50	4.00	1.63	YES
L0000581	0	0.48640E-07	403571.1	3759115.9	60.4	3.50	4.00	1.63	YES
L0000582	0	0.48640E-07	403562.7	3759114.2	60.3	3.50	4.00	1.63	YES
L0000583	0	0.48640E-07	403554.3	3759112.6	60.1	3.50	4.00	1.63	YES
L0000584	0	0.48640E-07	403545.8	3759111.0	60.0	3.50	4.00	1.63	YES
L0000585	0	0.48640E-07	403537.4	3759109.3	59.9	3.50	4.00	1.63	YES
L0000586	0	0.48640E-07	403529.0	3759107.7	59.7	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000587	0	0.48640E-07	403520.5	3759106.1	59.6	3.50	4.00	1.63	YES	
L0000588	0	0.48640E-07	403512.1	3759104.5	59.5	3.50	4.00	1.63	YES	
L0000589	0	0.48640E-07	403503.7	3759102.8	59.4	3.50	4.00	1.63	YES	
L0000590	0	0.48640E-07	403495.2	3759101.2	59.3	3.50	4.00	1.63	YES	
L0000591	0	0.48640E-07	403486.8	3759099.6	59.1	3.50	4.00	1.63	YES	
L0000592	0	0.48640E-07	403478.4	3759097.9	58.9	3.50	4.00	1.63	YES	
L0000593	0	0.48640E-07	403469.9	3759096.3	58.8	3.50	4.00	1.63	YES	
L0000594	0	0.48640E-07	403461.5	3759094.7	58.5	3.50	4.00	1.63	YES	
L0000595	0	0.48640E-07	403453.1	3759093.1	58.3	3.50	4.00	1.63	YES	
L0000596	0	0.48640E-07	403444.6	3759091.4	58.0	3.50	4.00	1.63	YES	
L0000597	0	0.48640E-07	403436.2	3759089.8	57.8	3.50	4.00	1.63	YES	
L0000598	0	0.48640E-07	403427.8	3759088.2	57.5	3.50	4.00	1.63	YES	
L0000599	0	0.48640E-07	403419.3	3759086.5	57.4	3.50	4.00	1.63	YES	
L0000600	0	0.48640E-07	403410.9	3759084.9	57.3	3.50	4.00	1.63	YES	
L0000601	0	0.48640E-07	403402.5	3759083.3	57.2	3.50	4.00	1.63	YES	
L0000602	0	0.48640E-07	403394.0	3759081.6	57.1	3.50	4.00	1.63	YES	
L0000603	0	0.48640E-07	403385.6	3759080.0	57.1	3.50	4.00	1.63	YES	
L0000604	0	0.48640E-07	403377.1	3759078.4	57.0	3.50	4.00	1.63	YES	
L0000605	0	0.48640E-07	403368.7	3759076.8	56.9	3.50	4.00	1.63	YES	
L0000606	0	0.48640E-07	403360.3	3759075.1	56.9	3.50	4.00	1.63	YES	
L0000607	0	0.48640E-07	403351.8	3759073.5	56.8	3.50	4.00	1.63	YES	
L0000608	0	0.48640E-07	403343.4	3759071.9	56.8	3.50	4.00	1.63	YES	
L0000609	0	0.48640E-07	403335.0	3759070.2	56.7	3.50	4.00	1.63	YES	
L0000610	0	0.48640E-07	403326.5	3759068.6	56.6	3.50	4.00	1.63	YES	

L0000611	0	0.48640E-07	403318.1	3759067.0	56.6	3.50	4.00	1.63	YES
L0000612	0	0.48640E-07	403309.7	3759065.4	56.4	3.50	4.00	1.63	YES
L0000613	0	0.48640E-07	403301.2	3759063.7	56.2	3.50	4.00	1.63	YES
L0000614	0	0.48640E-07	403292.8	3759062.1	56.0	3.50	4.00	1.63	YES
L0000615	0	0.48640E-07	403284.4	3759060.5	55.7	3.50	4.00	1.63	YES
L0000616	0	0.48640E-07	403275.9	3759058.8	55.4	3.50	4.00	1.63	YES
L0000617	0	0.48640E-07	403267.5	3759057.2	55.1	3.50	4.00	1.63	YES
L0000618	0	0.48640E-07	403259.1	3759055.6	54.9	3.50	4.00	1.63	YES
L0000619	0	0.48640E-07	403250.6	3759053.9	54.8	3.50	4.00	1.63	YES
L0000620	0	0.48640E-07	403242.2	3759052.3	54.5	3.50	4.00	1.63	YES
L0000621	0	0.48640E-07	403233.8	3759050.7	54.5	3.50	4.00	1.63	YES
L0000622	0	0.48640E-07	403225.3	3759049.1	54.5	3.50	4.00	1.63	YES
L0000623	0	0.48640E-07	403216.9	3759047.4	54.4	3.50	4.00	1.63	YES
L0000624	0	0.48640E-07	403208.5	3759045.8	54.2	3.50	4.00	1.63	YES
L0000625	0	0.48640E-07	403200.0	3759044.2	54.0	3.50	4.00	1.63	YES
L0000626	0	0.48640E-07	403191.6	3759042.5	53.8	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000627	0	0.48640E-07	403183.1	3759040.9	53.5	3.50	4.00	1.63	YES	
L0000628	0	0.48640E-07	403174.7	3759039.3	53.3	3.50	4.00	1.63	YES	
L0000629	0	0.48640E-07	403166.3	3759037.7	53.0	3.50	4.00	1.63	YES	
L0000630	0	0.48640E-07	403157.8	3759036.0	52.8	3.50	4.00	1.63	YES	
L0000631	0	0.48640E-07	403149.4	3759034.4	52.6	3.50	4.00	1.63	YES	
L0000632	0	0.48640E-07	403141.0	3759032.8	52.4	3.50	4.00	1.63	YES	
L0000633	0	0.48640E-07	403132.5	3759031.1	52.2	3.50	4.00	1.63	YES	
L0000634	0	0.57740E-07	403545.9	3759463.3	69.3	3.50	4.70	1.63	YES	
L0000635	0	0.57740E-07	403545.8	3759471.8	69.5	3.50	4.70	1.63	YES	
L0000636	0	0.57740E-07	403542.3	3759481.3	69.7	3.50	4.70	1.63	YES	
L0000637	0	0.57740E-07	403538.2	3759490.5	69.9	3.50	4.70	1.63	YES	
L0000638	0	0.57740E-07	403533.2	3759499.3	70.1	3.50	4.70	1.63	YES	
L0000639	0	0.57740E-07	403528.2	3759508.1	70.2	3.50	4.70	1.63	YES	
L0000640	0	0.57740E-07	403523.1	3759516.9	70.1	3.50	4.70	1.63	YES	
L0000641	0	0.57740E-07	403518.1	3759525.6	70.3	3.50	4.70	1.63	YES	
L0000642	0	0.57740E-07	403513.1	3759534.4	70.5	3.50	4.70	1.63	YES	
L0000643	0	0.57740E-07	403508.1	3759543.2	70.8	3.50	4.70	1.63	YES	
L0000644	0	0.57740E-07	403503.0	3759552.0	71.1	3.50	4.70	1.63	YES	
L0000645	0	0.57740E-07	403498.0	3759560.8	71.1	3.50	4.70	1.63	YES	
L0000646	0	0.57740E-07	403493.0	3759569.5	71.0	3.50	4.70	1.63	YES	
L0000647	0	0.57740E-07	403488.0	3759578.3	71.0	3.50	4.70	1.63	YES	

L0000648	0	0.57740E-07	403483.0	3759587.1	71.0	3.50	4.70	1.63	YES
L0000649	0	0.57740E-07	403478.0	3759595.9	71.1	3.50	4.70	1.63	YES
L0000650	0	0.57740E-07	403473.0	3759604.7	71.2	3.50	4.70	1.63	YES
L0000651	0	0.57740E-07	403468.0	3759613.5	71.4	3.50	4.70	1.63	YES
L0000652	0	0.57740E-07	403463.0	3759622.3	71.6	3.50	4.70	1.63	YES
L0000653	0	0.57740E-07	403458.0	3759631.1	71.8	3.50	4.70	1.63	YES
L0000654	0	0.57740E-07	403453.0	3759639.9	71.8	3.50	4.70	1.63	YES
L0000655	0	0.57740E-07	403447.6	3759648.4	71.9	3.50	4.70	1.63	YES
L0000656	0	0.57740E-07	403442.1	3759657.0	71.9	3.50	4.70	1.63	YES
L0000657	0	0.57740E-07	403436.7	3759665.5	72.0	3.50	4.70	1.63	YES
L0000658	0	0.57740E-07	403431.3	3759674.0	72.2	3.50	4.70	1.63	YES
L0000659	0	0.57740E-07	403425.8	3759682.6	72.3	3.50	4.70	1.63	YES
L0000660	0	0.57740E-07	403420.4	3759691.1	72.3	3.50	4.70	1.63	YES
L0000661	0	0.57740E-07	403415.0	3759699.6	72.3	3.50	4.70	1.63	YES
L0000662	0	0.57740E-07	403409.6	3759708.2	72.4	3.50	4.70	1.63	YES
L0000663	0	0.57740E-07	403404.1	3759716.7	72.5	3.50	4.70	1.63	YES
L0000664	0	0.57740E-07	403398.7	3759725.2	72.5	3.50	4.70	1.63	YES
L0000665	0	0.57740E-07	403393.6	3759733.9	72.5	3.50	4.70	1.63	YES
L0000666	0	0.57740E-07	403388.4	3759742.7	72.4	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000667	0	0.57740E-07	403383.3	3759751.4	72.4	3.50	4.70	1.63	YES	
L0000668	0	0.57740E-07	403378.1	3759760.1	72.3	3.50	4.70	1.63	YES	
L0000669	0	0.57740E-07	403373.0	3759768.8	72.2	3.50	4.70	1.63	YES	
L0000670	0	0.57740E-07	403367.8	3759777.5	72.1	3.50	4.70	1.63	YES	
L0000671	0	0.57740E-07	403362.7	3759786.2	72.1	3.50	4.70	1.63	YES	
L0000672	0	0.57740E-07	403357.5	3759794.9	72.0	3.50	4.70	1.63	YES	
L0000673	0	0.57740E-07	403352.4	3759803.6	72.0	3.50	4.70	1.63	YES	
L0000674	0	0.57740E-07	403347.2	3759812.3	72.0	3.50	4.70	1.63	YES	
L0000675	0	0.57740E-07	403342.1	3759821.0	71.9	3.50	4.70	1.63	YES	
L0000676	0	0.57740E-07	403337.0	3759829.7	71.9	3.50	4.70	1.63	YES	
L0000677	0	0.57740E-07	403331.8	3759838.4	71.8	3.50	4.70	1.63	YES	
L0000678	0	0.57740E-07	403326.7	3759847.1	71.8	3.50	4.70	1.63	YES	
L0000679	0	0.57740E-07	403321.5	3759855.8	71.7	3.50	4.70	1.63	YES	
L0000680	0	0.57740E-07	403316.4	3759864.6	71.7	3.50	4.70	1.63	YES	
L0000681	0	0.57740E-07	403311.2	3759873.3	71.5	3.50	4.70	1.63	YES	
L0000682	0	0.57740E-07	403306.1	3759882.0	71.4	3.50	4.70	1.63	YES	
L0000683	0	0.57740E-07	403300.9	3759890.7	71.4	3.50	4.70	1.63	YES	
L0000684	0	0.57740E-07	403295.8	3759899.4	71.3	3.50	4.70	1.63	YES	

L0000685	0	0.57740E-07	403290.6	3759908.1	71.3	3.50	4.70	1.63	YES
L0000686	0	0.57740E-07	403285.5	3759916.8	71.3	3.50	4.70	1.63	YES
L0000687	0	0.57740E-07	403280.3	3759925.5	71.2	3.50	4.70	1.63	YES
L0000688	0	0.57740E-07	403275.2	3759934.2	71.2	3.50	4.70	1.63	YES
L0000689	0	0.57740E-07	403270.0	3759942.9	71.2	3.50	4.70	1.63	YES
L0000690	0	0.57740E-07	403264.9	3759951.6	71.2	3.50	4.70	1.63	YES
L0000691	0	0.57740E-07	403259.7	3759960.3	71.1	3.50	4.70	1.63	YES
L0000692	0	0.57740E-07	403254.6	3759969.0	71.0	3.50	4.70	1.63	YES
L0000693	0	0.57740E-07	403249.4	3759977.7	71.0	3.50	4.70	1.63	YES
L0000694	0	0.57740E-07	403244.3	3759986.5	71.0	3.50	4.70	1.63	YES
L0000695	0	0.57740E-07	403239.2	3759995.2	70.9	3.50	4.70	1.63	YES
L0000696	0	0.57740E-07	403234.0	3760003.9	70.9	3.50	4.70	1.63	YES
L0000697	0	0.57740E-07	403228.9	3760012.6	70.8	3.50	4.70	1.63	YES
L0000698	0	0.57740E-07	403223.7	3760021.3	70.8	3.50	4.70	1.63	YES
L0000699	0	0.57740E-07	403218.6	3760030.0	70.8	3.50	4.70	1.63	YES
L0000700	0	0.57740E-07	403213.4	3760038.7	70.7	3.50	4.70	1.63	YES
L0000701	0	0.57740E-07	403208.3	3760047.4	70.6	3.50	4.70	1.63	YES
L0000702	0	0.57740E-07	403203.1	3760056.1	70.5	3.50	4.70	1.63	YES
L0000703	0	0.57740E-07	403198.0	3760064.8	70.5	3.50	4.70	1.63	YES
L0000704	0	0.57740E-07	403192.8	3760073.5	70.5	3.50	4.70	1.63	YES
L0000705	0	0.57740E-07	403187.7	3760082.2	70.5	3.50	4.70	1.63	YES
L0000706	0	0.57740E-07	403182.5	3760090.9	70.5	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000707	0	0.57740E-07	403177.4	3760099.6	70.4	3.50	4.70	1.63	YES	
L0000708	0	0.57740E-07	403172.2	3760108.4	70.4	3.50	4.70	1.63	YES	
L0000709	0	0.57740E-07	403167.1	3760117.1	70.5	3.50	4.70	1.63	YES	
L0000710	0	0.57740E-07	403161.9	3760125.8	70.5	3.50	4.70	1.63	YES	
L0000711	0	0.57740E-07	403156.8	3760134.5	70.4	3.50	4.70	1.63	YES	
L0000712	0	0.57740E-07	403151.6	3760143.2	70.3	3.50	4.70	1.63	YES	
L0000713	0	0.57740E-07	403146.5	3760151.9	70.3	3.50	4.70	1.63	YES	
L0000714	0	0.57740E-07	403141.3	3760160.6	70.3	3.50	4.70	1.63	YES	
L0000715	0	0.57740E-07	403136.2	3760169.3	70.3	3.50	4.70	1.63	YES	
L0000716	0	0.57740E-07	403131.1	3760178.0	70.2	3.50	4.70	1.63	YES	
L0000717	0	0.57740E-07	403125.9	3760186.7	70.1	3.50	4.70	1.63	YES	
L0000718	0	0.57740E-07	403120.8	3760195.4	70.0	3.50	4.70	1.63	YES	
L0000719	0	0.57740E-07	403115.6	3760204.1	70.0	3.50	4.70	1.63	YES	
L0000720	0	0.57740E-07	403110.5	3760212.8	70.1	3.50	4.70	1.63	YES	
L0000721	0	0.57740E-07	403105.3	3760221.5	70.1	3.50	4.70	1.63	YES	

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L0000722         0   0.57740E-07  403100.2 3760230.3    70.2     3.50     4.70     1.63     YES
L0000723         0   0.57740E-07  403095.0 3760239.0    70.2     3.50     4.70     1.63     YES
L0000724         0   0.57740E-07  403089.9 3760247.7    70.3     3.50     4.70     1.63     YES
L0000725         0   0.57740E-07  403084.7 3760256.4    70.4     3.50     4.70     1.63     YES
L0000726         0   0.57740E-07  403079.6 3760265.1    70.4     3.50     4.70     1.63     YES
L0000727         0   0.57740E-07  403074.4 3760273.8    70.5     3.50     4.70     1.63     YES
L0000728         0   0.57740E-07  403069.3 3760282.5    70.7     3.50     4.70     1.63     YES
L0000729         0   0.57740E-07  403064.1 3760291.2    70.9     3.50     4.70     1.63     YES
L0000730         0   0.57740E-07  403059.0 3760299.9    71.0     3.50     4.70     1.63     YES
L0000731         0   0.57740E-07  403053.8 3760308.6    71.2     3.50     4.70     1.63     YES
L0000732         0   0.57740E-07  403048.7 3760317.3    71.3     3.50     4.70     1.63     YES
L0000733         0   0.57740E-07  403043.5 3760326.0    71.4     3.50     4.70     1.63     YES
L0000734         0   0.57740E-07  403038.4 3760334.7    71.2     3.50     4.70     1.63     YES
L0000735         0   0.57740E-07  403033.3 3760343.4    71.1     3.50     4.70     1.63     YES
L0000736         0   0.57740E-07  403028.1 3760352.1    71.0     3.50     4.70     1.63     YES
L0000737         0   0.57740E-07  403023.0 3760360.9    70.9     3.50     4.70     1.63     YES
L0000738         0   0.57740E-07  403017.8 3760369.6    71.0     3.50     4.70     1.63     YES
L0000739         0   0.57740E-07  403012.7 3760378.3    71.1     3.50     4.70     1.63     YES

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                              ***        18:08:08
                                                                                                        PAGE  10
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                          SOURCE IDs
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 ALL        STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , L0000467    , L0000468    , L0000469    ,
            L0000470    , L0000471    , L0000472    , L0000473    , L0000474    , L0000475    , L0000476    , L0000477    ,
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

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L0000734 , L0000735 , L0000736 , L0000737 , L0000738 , L0000739 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

9818605. STCK1 , STCK2 , STCK3 , STCK4 , STCK5 , L0000467 , L0000468 , L0000469 ,

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

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L0000718 , L0000719 , L0000720 , L0000721 , L0000722 , L0000723 , L0000724 , L0000725 ,

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-18.6,	-35.5,	2	10.7,	215.2,	250.1,	-25.0,	-15.0,
3	10.7,	198.7,	259.2,	-30.8,	5.5,	4	10.7,	178.8,	260.5,	-35.5,	24.6,
5	10.7,	153.4,	253.9,	-39.2,	42.8,	6	10.7,	124.1,	243.3,	-42.0,	59.5,
7	10.7,	147.9,	246.9,	-50.2,	77.4,	8	10.7,	182.2,	243.0,	-56.8,	87.0,
9	10.7,	211.0,	231.7,	-61.8,	94.0,	10	10.7,	233.4,	226.0,	-77.5,	98.1,
11	10.7,	250.1,	215.2,	-92.6,	100.0,	12	10.7,	259.2,	198.7,	-104.8,	98.9,
13	10.7,	260.5,	178.8,	-113.9,	94.7,	14	10.7,	253.9,	153.4,	-119.5,	87.7,
15	10.7,	243.3,	124.1,	-121.5,	79.7,	16	10.7,	246.9,	147.9,	-151.3,	73.3,
17	10.7,	243.0,	182.2,	-178.1,	64.6,	18	10.7,	231.7,	211.0,	-199.5,	54.1,
19	10.7,	226.0,	233.4,	-214.8,	35.5,	20	10.7,	215.2,	250.1,	-225.1,	15.0,
21	10.7,	198.7,	259.2,	-228.5,	-5.5,	22	10.7,	178.8,	260.5,	-225.0,	-24.6,
23	10.7,	153.4,	253.9,	-214.6,	-42.8,	24	10.7,	124.1,	243.3,	-201.3,	-59.5,
25	10.7,	147.9,	246.9,	-196.7,	-77.4,	26	10.7,	182.2,	243.0,	-186.1,	-87.0,
27	10.7,	211.0,	231.7,	-169.9,	-94.0,	28	10.7,	233.4,	226.0,	-148.5,	-98.1,
29	10.7,	250.1,	215.2,	-122.6,	-100.0,	30	10.7,	259.2,	198.7,	-93.8,	-98.9,
31	10.7,	260.5,	178.8,	-64.8,	-94.7,	32	10.7,	253.9,	153.4,	-33.9,	-87.7,
33	10.7,	243.3,	124.1,	-2.6,	-79.7,	34	10.7,	246.9,	147.9,	3.4,	-73.3,
35	10.7,	243.0,	182.2,	-4.1,	-64.6,	36	10.7,	231.7,	211.0,	-11.5,	-54.1,

SOURCE ID: STCK2

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-61.8,	20.2,	2	10.7,	215.2,	250.1,	-77.3,	32.4,
3	10.7,	198.7,	259.2,	-90.5,	43.1,	4	10.7,	178.8,	260.5,	-100.9,	51.2,
5	10.7,	153.4,	253.9,	-108.2,	57.7,	6	10.7,	124.1,	243.3,	-112.5,	62.1,
7	10.7,	147.9,	246.9,	-120.1,	67.7,	8	10.7,	182.2,	243.0,	-124.0,	65.4,
9	10.7,	211.0,	231.7,	-124.2,	61.0,	10	10.7,	233.4,	226.0,	-133.2,	54.8,
11	10.7,	250.1,	215.2,	-140.0,	47.7,	12	10.7,	259.2,	198.7,	-142.4,	39.1,
13	10.7,	260.5,	178.8,	-140.6,	29.4,	14	10.7,	253.9,	153.4,	-134.4,	18.7,
15	10.7,	243.3,	124.1,	-124.2,	9.1,	16	10.7,	246.9,	147.9,	-141.7,	3.3,
17	10.7,	243.0,	182.2,	-156.5,	-2.5,	18	10.7,	231.7,	211.0,	-166.5,	-8.3,
19	10.7,	226.0,	233.4,	-171.5,	-20.2,	20	10.7,	215.2,	250.1,	-172.8,	-32.4,
21	10.7,	198.7,	259.2,	-168.7,	-43.1,	22	10.7,	178.8,	260.5,	-159.6,	-51.2,
23	10.7,	153.4,	253.9,	-145.6,	-57.7,	24	10.7,	124.1,	243.3,	-130.8,	-62.1,
25	10.7,	147.9,	246.9,	-126.8,	-67.7,	26	10.7,	182.2,	243.0,	-118.9,	-65.4,
27	10.7,	211.0,	231.7,	-107.5,	-61.0,	28	10.7,	233.4,	226.0,	-92.8,	-54.8,
29	10.7,	250.1,	215.2,	-75.2,	-47.7,	30	10.7,	259.2,	198.7,	-56.3,	-39.1,

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  31   10.7,  260.5,  178.8,  -38.2,  -29.4,     32   10.7,  253.9,  153.4,  -19.0,  -18.7,
  33   10.7,  243.3,  124.1,    0.1,   -9.1,     34   10.7,  246.9,  147.9,   -6.2,   -3.3,
  35   10.7,  243.0,  182.2,  -25.7,    2.5,     36   10.7,  231.7,  211.0,  -44.5,    8.3,


SOURCE ID: STCK3
 IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
   1   10.7,  226.0,  233.4,  -31.6,  -16.6,      2   10.7,  215.2,  250.1,  -41.2,    1.4,
   3   10.7,  198.7,  259.2,  -49.5,   18.8,      4   10.7,  178.8,  260.5,  -56.3,   34.4,
   5   10.7,  153.4,  253.9,  -61.4,   49.0,      6   10.7,  124.1,  243.3,  -64.9,   61.6,
   7   10.7,  147.9,  246.9,  -73.1,   75.5,      8   10.7,  182.2,  243.0,  -79.1,   81.2,
   9   10.7,  211.0,  231.7,  -82.7,   84.4,     10   10.7,  233.4,  226.0,  -96.4,   85.1,
  11   10.7,  250.1,  215.2, -109.0,   83.9,     12   10.7,  259.2,  198.7, -118.2,   80.1,
  13   10.7,  260.5,  178.8, -123.8,   73.9,     14   10.7,  253.9,  153.4, -125.7,   65.5,
  15   10.7,  243.3,  124.1, -123.7,   56.8,     16   10.7,  246.9,  147.9, -149.5,   50.3,
  17   10.7,  243.0,  182.2, -172.3,   42.4,     18   10.7,  231.7,  211.0, -189.9,   33.1,
  19   10.7,  226.0,  233.4, -201.8,   16.6,     20   10.7,  215.2,  250.1, -208.9,   -1.4,
  21   10.7,  198.7,  259.2, -209.8,  -18.8,     22   10.7,  178.8,  260.5, -204.2,  -34.4,
  23   10.7,  153.4,  253.9, -192.4,  -49.0,     24   10.7,  124.1,  243.3, -178.4,  -61.6,
  25   10.7,  147.9,  246.9, -173.8,  -75.5,     26   10.7,  182.2,  243.0, -163.9,  -81.2,
  27   10.7,  211.0,  231.7, -149.0,  -84.4,     28   10.7,  233.4,  226.0, -129.6,  -85.1,
  29   10.7,  250.1,  215.2, -106.2,  -83.9,     30   10.7,  259.2,  198.7,  -80.5,  -80.1,
  31   10.7,  260.5,  178.8,  -55.0,  -73.9,     32   10.7,  253.9,  153.4,  -27.8,  -65.5,
  33   10.7,  243.3,  124.1,   -0.4,  -56.8,     34   10.7,  246.9,  147.9,    1.6,  -50.3,
  35   10.7,  243.0,  182.2,   -9.9,  -42.4,     36   10.7,  231.7,  211.0,  -21.1,  -33.1,


SOURCE ID: STCK4
 IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
   1   10.7,  226.0,  233.4,  -84.8,   46.1,      2   10.7,  215.2,  250.1, -104.4,   53.8,
   3   10.7,  198.7,  259.2, -120.9,   59.5,      4   10.7,  178.8,  260.5, -133.7,   62.1,
   5   10.7,  153.4,  253.9, -142.4,   62.8,      6   10.7,  124.1,  243.3, -147.0,   61.2,
   7   10.7,  147.9,  246.9, -153.9,   60.8,      8   10.7,  182.2,  243.0, -156.1,   52.7,
   9   10.7,  211.0,  231.7, -153.6,   42.9,     10   10.7,  233.4,  226.0, -159.1,   31.9,
  11   10.7,  250.1,  215.2, -161.4,   20.6,     12   10.7,  259.2,  198.7, -158.9,    8.7,
  13   10.7,  260.5,  178.8, -151.5,   -3.4,     14   10.7,  253.9,  153.4, -139.5,  -15.5,
  15   10.7,  243.3,  124.1, -123.2,  -25.4,     16   10.7,  246.9,  147.9, -134.7,  -30.5,
  17   10.7,  243.0,  182.2, -143.8,  -34.6,     18   10.7,  231.7,  211.0, -148.4,  -37.8,
  19   10.7,  226.0,  233.4, -148.6,  -46.1,     20   10.7,  215.2,  250.1, -145.7,  -53.8,
  21   10.7,  198.7,  259.2, -138.4,  -59.5,     22   10.7,  178.8,  260.5, -126.8,  -62.1,
  23   10.7,  153.4,  253.9, -111.5,  -62.8,     24   10.7,  124.1,  243.3,  -96.2,  -61.2,
  25   10.7,  147.9,  246.9,  -93.0,  -60.8,     26   10.7,  182.2,  243.0,  -86.8,  -52.7,
  27   10.7,  211.0,  231.7,  -78.1,  -42.9,     28   10.7,  233.4,  226.0,  -66.9,  -31.9,
  29   10.7,  250.1,  215.2,  -53.8,  -20.6,     30   10.7,  259.2,  198.7,  -39.8,   -8.7,
  31   10.7,  260.5,  178.8,  -27.3,    3.4,     32   10.7,  253.9,  153.4,  -14.0,   15.5,
  33   10.7,  243.3,  124.1,   -0.9,   25.4,     34   10.7,  246.9,  147.9,  -13.2,   30.5,
  35   10.7,  243.0,  182.2,  -38.4,   34.6,     36   10.7,  231.7,  211.0,  -62.6,   37.8,


*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                              ***        18:08:08
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK5

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-97.0,	85.0,	2	10.7,	215.2,	250.1,	-123.2,	90.0,
3	10.7,	198.7,	259.2,	-145.7,	91.8,	4	10.7,	178.8,	260.5,	-163.7,	89.6,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	10.7,	147.9,	246.9,	-193.7,	69.6,	8	10.7,	182.2,	243.0,	-196.9,	54.4,
9	10.7,	211.0,	231.7,	-194.0,	37.6,	10	10.7,	233.4,	226.0,	-198.0,	19.7,
11	10.7,	250.1,	215.2,	-197.6,	1.8,	12	10.7,	259.2,	198.7,	-191.2,	-16.1,
13	10.7,	260.5,	178.8,	-179.0,	-33.5,	14	10.7,	253.9,	153.4,	-161.4,	-49.9,
15	10.7,	243.3,	124.1,	-138.8,	-63.1,	16	10.7,	246.9,	147.9,	-143.6,	-70.3,
17	10.7,	243.0,	182.2,	-145.6,	-75.4,	18	10.7,	231.7,	211.0,	-143.1,	-78.2,
19	10.7,	226.0,	233.4,	-136.3,	-85.0,	20	10.7,	215.2,	250.1,	-126.9,	-90.0,
21	10.7,	198.7,	259.2,	-113.5,	-91.8,	22	10.7,	178.8,	260.5,	-96.8,	-89.6,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	10.7,	147.9,	246.9,	-53.1,	-69.6,	26	10.7,	182.2,	243.0,	-46.1,	-54.4,
27	10.7,	211.0,	231.7,	-37.6,	-37.6,	28	10.7,	233.4,	226.0,	-28.1,	-19.7,
29	10.7,	250.1,	215.2,	-17.6,	-1.8,	30	10.7,	259.2,	198.7,	-7.5,	16.1,
31	10.7,	260.5,	178.8,	0.2,	33.5,	32	10.7,	253.9,	153.4,	8.0,	49.9,
33	10.7,	243.3,	124.1,	14.7,	63.1,	34	10.7,	246.9,	147.9,	-4.3,	70.3,
35	10.7,	243.0,	182.2,	-36.7,	75.4,	36	10.7,	231.7,	211.0,	-67.9,	78.2,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

402680.3, 402746.2, 402812.2, 402878.1, 402944.0, 403010.0, 403075.9, 403141.8, 403207.8, 403273.7,
403339.6, 403405.5, 403471.5, 403537.4, 403603.3, 403669.3, 403735.2, 403801.1, 403867.1, 403933.0,
403998.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3759000.9, 3759070.5, 3759140.2, 3759209.8, 3759279.4, 3759349.0, 3759418.7, 3759488.3, 3759557.9, 3759627.6,
3759697.2, 3759766.8, 3759836.5, 3759906.1, 3759975.7, 3760045.4, 3760115.0, 3760184.6, 3760254.2, 3760323.9,
3760393.5,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	65.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	56.20	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	59.50
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	55.00	55.10	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	78.20	79.70	82.10	84.30	85.20	87.50	88.10	90.20	92.90
3760323.87	76.50	78.70	80.70	82.30	83.80	84.90	86.10	88.80	90.70
3760254.24	75.30	77.80	78.80	80.80	82.10	83.20	84.90	87.20	89.70

3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	84.00	86.10	88.20
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	87.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	66.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	94.90	97.60	99.60
3760323.87	92.60	95.30	97.80
3760254.24	91.60	94.30	96.20
3760184.61	91.00	92.90	95.10
3760114.98	90.20	92.20	94.00
3760045.35	89.50	91.10	93.10
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40
3759279.42	69.70	70.80	72.20
3759209.79	68.20	69.70	71.50
3759140.16	67.40	68.50	70.00

3759070.53	66.00	67.90	69.10
3759000.90	65.80	66.90	68.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	67.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	59.00	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	62.60
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	57.50	56.80	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13

3760393.50	78.20	79.70	82.10	324.50	361.90	361.90	361.90	361.90	361.90
3760323.87	76.50	78.70	80.70	82.30	324.50	361.90	361.90	361.90	361.90
3760254.24	75.30	77.80	78.80	80.80	82.10	324.70	324.70	361.90	361.90
3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	324.50	324.70	336.70
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	323.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	70.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	361.90	361.90	361.90
3760323.87	361.90	361.90	361.90
3760254.24	361.90	361.90	361.90
3760184.61	361.10	361.90	361.90
3760114.98	324.50	324.70	336.70
3760045.35	89.50	91.10	323.90
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40

```
 3759279.42 |         69.70        70.80        72.20
 3759209.79 |         68.20        69.70        71.50
 3759140.16 |         67.40        68.50        70.00
 3759070.53 |         66.00        67.90        69.10
 3759000.90 |         65.80        66.90        68.20

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                      ***        18:08:08
                                                                                                               PAGE  23
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                (METERS)

    ( 403076.6, 3759566.9,      63.0,      63.0,       0.0);        ( 403074.6, 3759594.7,      63.1,      63.1,       0.0);
    ( 403074.3, 3759652.4,      63.8,      63.8,       0.0);        ( 403036.2, 3759545.2,      61.6,      61.6,       0.0);
    ( 403491.1, 3759689.7,      73.7,      73.7,       0.0);        ( 403558.2, 3759512.8,      71.0,      71.0,       0.0);
    ( 403587.6, 3759479.4,      70.9,      70.9,       0.0);        ( 403471.1, 3759691.3,      73.3,      73.3,       0.0);
    ( 403097.0, 3760166.2,      69.1,      69.1,       0.0);

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                      ***        18:08:08
                                                                                                               PAGE  24
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                   * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
                     LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL


                        SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
                          ID            XR (METERS)   YR (METERS)         (METERS)
                      - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                       L0000472           403339.6     3759627.6           -7.09
                       L0000473           403339.6     3759627.6           -0.90
                       L0000489           403207.8     3759557.9           -2.06
                       L0000490           403207.8     3759557.9           -1.64
                       L0000497           403405.5     3759627.6           -4.59
                       L0000498           403405.5     3759627.6           -3.45
                       L0000528           403537.4     3759418.7            0.82
                       L0000556           403669.3     3759209.8           -3.56
                       L0000557           403669.3     3759209.8           -5.02
                       L0000608           403339.6     3759070.5           -4.58
                       L0000609           403339.6     3759070.5           -3.94
                       L0000636           403537.4     3759488.3           -1.57
                       L0000637           403537.4     3759488.3           -7.74
                       L0000652           403471.5     3759627.6           -0.10
                       L0000661           403405.5     3759697.2           -0.35
                       L0000676           403339.6     3759836.5           -2.86
                       L0000677           403339.6     3759836.5           -2.05
```

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                         L0000700           403207.8     3760045.4           -1.37
                         L0000701           403207.8     3760045.4           -7.99
                         L0000725           403075.9     3760254.2           -1.02

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                                ***        18:08:08
                                                                                                                          PAGE  25
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                      *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                                ***        18:08:08
                                                                                                                          PAGE  26
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                      *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC                                          Met Version:  16216
  Profile file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL
  Surface format: FREE
  Profile format: FREE
  Surface station no.:     3166                Upper air station no.:     3190
                Name: UNKNOWN                                Name: UNKNOWN
                Year:   2010                                 Year:   2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01  -38.6  0.384 -9.000 -9.000 -999.  572.    162.4  0.34   0.73   1.00    3.10  321.    9.1  283.8    5.5
 10 01 01   1 02  -33.5  0.333 -9.000 -9.000 -999.  462.    121.8  0.34   0.73   1.00    2.70  217.    9.1  282.5    5.5
 10 01 01   1 03  -21.9  0.218 -9.000 -9.000 -999.  251.     52.2  0.34   0.73   1.00    1.80  290.    9.1  282.5    5.5
```

```
10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  255.    9.1  282.0    5.5
10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73   1.00    1.80  234.    9.1  282.0    5.5
10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  258.    9.1  282.0    5.5
10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  213.    9.1  281.4    5.5
10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73   0.54    2.70  215.    9.1  282.0    5.5
10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73   0.32    1.80  199.    9.1  284.2    5.5
10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73   0.24    2.70  117.    9.1  288.1    5.5
10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73   0.21    2.70  243.    9.1  290.4    5.5
10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73   0.20    1.80  130.    9.1  293.1    5.5
10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73   0.20    1.80  282.    9.1  294.9    5.5
10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73   0.21    1.30  290.    9.1  295.9    5.5
10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73   0.25    1.30  192.    9.1  294.9    5.5
10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73   0.33    1.30  218.    9.1  293.8    5.5
10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73   0.60    1.30  255.    9.1  292.0    5.5
10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73   1.00    0.90  129.    9.1  289.2    5.5
10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73   1.00    1.30  264.    9.1  287.5    5.5
10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73   1.00    1.30   25.    9.1  287.0    5.5
10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  343.    9.1  285.9    5.5
10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  332.    9.1  284.9    5.5
10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  178.    9.1  284.2    5.5
10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73   1.00    1.30   28.    9.1  283.1    5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations OY 2024                                      ***        18:08:08
                                                                                                               PAGE  27

*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               L0000467    , L0000468    , L0000469    , L0000470    , L0000471    , L0000472    , L0000473    , L0000474    ,
               L0000475    , L0000476    , L0000477    , L0000478    , L0000479    , L0000480    , L0000481    , L0000482    ,
               L0000483    , L0000484    , L0000485    , L0000486    , L0000487    , L0000488    , L0000489    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                      **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     402680.32    402746.25    402812.18    402878.11    402944.04    403009.97    403075.90    403141.83    403207.76
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3760393.50 |       0.00007      0.00009      0.00010      0.00012      0.00016      0.00036      0.00023      0.00019      0.00018
 3760323.87 |       0.00008      0.00010      0.00012      0.00014      0.00019      0.00039      0.00048      0.00027      0.00023
```

3760254.24	0.00009	0.00011	0.00013	0.00016	0.00021	0.00030	0.00073	0.00041	0.00031
3760184.61	0.00010	0.00013	0.00015	0.00019	0.00024	0.00030	0.00045	0.00087	0.00043
3760114.98	0.00012	0.00014	0.00017	0.00021	0.00027	0.00033	0.00043	0.00072	0.00066
3760045.35	0.00013	0.00016	0.00019	0.00024	0.00030	0.00038	0.00046	0.00060	0.00096
3759975.72	0.00014	0.00017	0.00021	0.00027	0.00034	0.00043	0.00053	0.00065	0.00087
3759906.09	0.00015	0.00019	0.00024	0.00030	0.00038	0.00048	0.00061	0.00076	0.00094
3759836.46	0.00016	0.00020	0.00026	0.00032	0.00041	0.00053	0.00069	0.00092	0.00123
3759766.83	0.00017	0.00022	0.00027	0.00035	0.00044	0.00057	0.00078	0.00131	0.00160
3759697.20	0.00018	0.00022	0.00029	0.00036	0.00046	0.00061	0.00091	0.00128	0.00175
3759627.57	0.00018	0.00023	0.00029	0.00037	0.00048	0.00065	0.00113	0.00121	0.00217
3759557.94	0.00018	0.00023	0.00029	0.00037	0.00049	0.00070	0.00113	0.00190	0.00315
3759488.31	0.00017	0.00022	0.00028	0.00036	0.00049	0.00071	0.00115	0.00187	0.00197
3759418.68	0.00016	0.00021	0.00027	0.00036	0.00049	0.00071	0.00097	0.00107	0.00092
3759349.05	0.00015	0.00020	0.00026	0.00035	0.00047	0.00061	0.00068	0.00066	0.00058
3759279.42	0.00014	0.00018	0.00024	0.00031	0.00039	0.00047	0.00048	0.00044	0.00040
3759209.79	0.00013	0.00017	0.00021	0.00026	0.00031	0.00034	0.00034	0.00032	0.00031
3759140.16	0.00012	0.00015	0.00018	0.00021	0.00024	0.00025	0.00026	0.00027	0.00029
3759070.53	0.00010	0.00012	0.00015	0.00017	0.00018	0.00020	0.00022	0.00034	0.00051
3759000.90	0.00009	0.00011	0.00012	0.00013	0.00014	0.00016	0.00018	0.00030	0.00031

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000467 , L0000468 , L0000469 , L0000470 , L0000471 , L0000472 , L0000473 , L0000474 ,
L0000475 , L0000476 , L0000477 , L0000478 , L0000479 , L0000480 , L0000481 , L0000482 ,
L0000483 , L0000484 , L0000485 , L0000486 , L0000487 , L0000488 , L0000489 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	0.00018	0.00017	0.00016	0.00016	0.00014	0.00013	0.00012	0.00011	0.00010
3760323.87	0.00022	0.00021	0.00020	0.00019	0.00017	0.00016	0.00014	0.00013	0.00012
3760254.24	0.00028	0.00027	0.00025	0.00023	0.00021	0.00019	0.00017	0.00015	0.00013
3760184.61	0.00037	0.00035	0.00032	0.00029	0.00026	0.00023	0.00020	0.00017	0.00015
3760114.98	0.00049	0.00045	0.00041	0.00036	0.00031	0.00027	0.00023	0.00020	0.00017
3760045.35	0.00068	0.00059	0.00052	0.00045	0.00039	0.00033	0.00027	0.00023	0.00018
3759975.72	0.00111	0.00079	0.00067	0.00057	0.00048	0.00039	0.00031	0.00025	0.00020
3759906.09	0.00139	0.00111	0.00089	0.00072	0.00058	0.00045	0.00034	0.00026	0.00020
3759836.46	0.00146	0.00167	0.00121	0.00090	0.00066	0.00048	0.00035	0.00026	0.00020
3759766.83	0.00192	0.00217	0.00180	0.00107	0.00070	0.00048	0.00035	0.00026	0.00019
3759697.20	0.00232	0.00196	0.00242	0.00117	0.00070	0.00047	0.00033	0.00024	0.00019
3759627.57	0.00284	0.00351	0.00252	0.00149	0.00071	0.00046	0.00032	0.00024	0.00018

3759557.94	0.00272	0.00187	0.00161	0.00165	0.00088	0.00048	0.00033	0.00024	0.00018
3759488.31	0.00152	0.00116	0.00104	0.00192	0.00119	0.00052	0.00033	0.00024	0.00018
3759418.68	0.00079	0.00073	0.00070	0.00078	0.00111	0.00056	0.00035	0.00025	0.00019
3759349.05	0.00052	0.00050	0.00050	0.00050	0.00057	0.00091	0.00038	0.00026	0.00019
3759279.42	0.00038	0.00038	0.00038	0.00038	0.00041	0.00063	0.00050	0.00028	0.00020
3759209.79	0.00032	0.00032	0.00033	0.00034	0.00036	0.00042	0.00072	0.00032	0.00019
3759140.16	0.00032	0.00034	0.00038	0.00043	0.00051	0.00068	0.00095	0.00033	0.00017
3759070.53	0.00078	0.00067	0.00073	0.00050	0.00039	0.00032	0.00027	0.00020	0.00014
3759000.90	0.00028	0.00026	0.00024	0.00022	0.00020	0.00019	0.00016	0.00014	0.00012

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000467 , L0000468 , L0000469 , L0000470 , L0000471 , L0000472 , L0000473 , L0000474 ,
L0000475 , L0000476 , L0000477 , L0000478 , L0000479 , L0000480 , L0000481 , L0000482 ,
L0000483 , L0000484 , L0000485 , L0000486 , L0000487 , L0000488 , L0000489 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	0.00009	0.00008	0.00008
3760323.87	0.00010	0.00009	0.00008
3760254.24	0.00012	0.00010	0.00009
3760184.61	0.00013	0.00011	0.00010
3760114.98	0.00014	0.00012	0.00010
3760045.35	0.00015	0.00013	0.00010
3759975.72	0.00016	0.00013	0.00010
3759906.09	0.00016	0.00013	0.00010
3759836.46	0.00016	0.00012	0.00010
3759766.83	0.00015	0.00012	0.00010
3759697.20	0.00014	0.00012	0.00009
3759627.57	0.00014	0.00011	0.00009
3759557.94	0.00014	0.00011	0.00009
3759488.31	0.00014	0.00012	0.00010
3759418.68	0.00015	0.00012	0.00010
3759349.05	0.00015	0.00012	0.00009
3759279.42	0.00015	0.00012	0.00009
3759209.79	0.00014	0.00011	0.00009
3759140.16	0.00013	0.00011	0.00008
3759070.53	0.00012	0.00010	0.00008
3759000.90	0.00010	0.00009	0.00008

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000467 , L0000468 , L0000469 , L0000470 , L0000471 , L0000472 , L0000473 , L0000474 ,
L0000475 , L0000476 , L0000477 , L0000478 , L0000479 , L0000480 , L0000481 , L0000482 ,
L0000483 , L0000484 , L0000485 , L0000486 , L0000487 , L0000488 , L0000489 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
403076.63	3759566.89	0.00114	403074.61	3759594.66	0.00112
403074.33	3759652.43	0.00107	403036.23	3759545.23	0.00082
403491.13	3759689.69	0.00099	403558.25	3759512.77	0.00085
403587.63	3759479.41	0.00062	403471.13	3759691.31	0.00119
403096.96	3760166.19	0.00052			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00351 AT	(403339.62, 3759627.57, 68.10, 68.10, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.00315 AT	(403207.76, 3759557.94, 66.70, 66.70, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.00284 AT	(403273.69, 3759627.57, 67.70, 67.70, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.00272 AT	(403273.69, 3759557.94, 66.40, 66.40, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.00252 AT	(403405.55, 3759627.57, 70.40, 70.40, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00242 AT	(403405.55, 3759697.20, 72.10, 72.10, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00232 AT	(403273.69, 3759697.20, 68.00, 68.00, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00217 AT	(403207.76, 3759627.57, 67.30, 67.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00217 AT	(403339.62, 3759766.83, 71.30, 71.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00197 AT	(403207.76, 3759488.31, 64.10, 64.10, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   9 Warning Message(s)
A Total of   1277 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   152 Calm Hours Identified

A Total of   1125 Missing Hours Identified (2.57 Percent)

   ******** FATAL ERROR MESSAGES ********
             *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   408   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   409   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   410   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   411   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   412   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
ME W186   896   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   896   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 15010101
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

   ****
   *** AERMOD Finishes Successfully ***
   ****

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 6/26/2023
** File: C:\Lakes\AERMOD View\19391 Whittier Blvd BP 2YR\19391 Whittier Blvd BP 2YR.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE 19391 Whittier Blvd BP
   TITLETWO DPM Concentrations 2YR 2025-2026
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "19391 Whittier Blvd BP 2YR.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      403193.640  3759565.730       66.820
** DESCRSRC Truck idling Location
   LOCATION STCK2        POINT      403256.045  3759598.705       67.440
** DESCRSRC Truck idling Location
   LOCATION STCK3        POINT      403214.561  3759575.303       66.930
** DESCRSRC Truck idling Location
   LOCATION STCK4        POINT      403285.474  3759616.787       67.600
** DESCRSRC Truck idling Location
   LOCATION STCK5        POINT      403325.895  3759622.106       67.810
** DESCRSRC Truck idling Location
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-site truck travel
```

```
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 4.22E-06
** Elevated
** Building Height = 10.67
** SZINIT = 4.96
** Nodes = 6
** 403377.081, 3759656.927, 68.97, 3.50, 4.00
** 403368.321, 3759649.002, 68.27, 3.50, 4.00
** 403361.646, 3759641.493, 68.07, 3.50, 4.00
** 403353.721, 3759633.985, 68.07, 3.50, 4.00
** 403323.270, 3759617.299, 67.71, 3.50, 4.00
** 403189.785, 3759541.797, 65.87, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000740     VOLUME   403373.895 3759654.046 68.80
   LOCATION L0000741     VOLUME   403367.608 3759648.200 68.24
   LOCATION L0000742     VOLUME   403361.900 3759641.779 68.19
   LOCATION L0000743     VOLUME   403355.687 3759635.848 68.25
   LOCATION L0000744     VOLUME   403348.563 3759631.158 68.15
   LOCATION L0000745     VOLUME   403341.029 3759627.030 68.08
   LOCATION L0000746     VOLUME   403333.495 3759622.902 67.96
   LOCATION L0000747     VOLUME   403325.961 3759618.774 67.80
   LOCATION L0000748     VOLUME   403318.463 3759614.581 67.70
   LOCATION L0000749     VOLUME   403310.986 3759610.351 67.69
   LOCATION L0000750     VOLUME   403303.508 3759606.122 67.65
   LOCATION L0000751     VOLUME   403296.031 3759601.892 67.57
   LOCATION L0000752     VOLUME   403288.553 3759597.663 67.52
   LOCATION L0000753     VOLUME   403281.076 3759593.433 67.47
   LOCATION L0000754     VOLUME   403273.598 3759589.204 67.42
   LOCATION L0000755     VOLUME   403266.120 3759584.974 67.36
   LOCATION L0000756     VOLUME   403258.643 3759580.745 67.21
   LOCATION L0000757     VOLUME   403251.165 3759576.515 67.10
   LOCATION L0000758     VOLUME   403243.688 3759572.286 67.02
   LOCATION L0000759     VOLUME   403236.210 3759568.056 66.91
   LOCATION L0000760     VOLUME   403228.733 3759563.827 66.83
   LOCATION L0000761     VOLUME   403221.255 3759559.597 66.77
   LOCATION L0000762     VOLUME   403213.778 3759555.368 66.73
   LOCATION L0000763     VOLUME   403206.300 3759551.138 66.47
   LOCATION L0000764     VOLUME   403198.823 3759546.909 66.17
   LOCATION L0000765     VOLUME   403191.345 3759542.679 65.89
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Offsite from Project dwy s/b along Whitter Frontage Rd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.8E-06
** Elevated
```

```
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 4
** 403383.146, 3759663.541, 69.95, 3.50, 4.00
** 403507.316, 3759446.613, 68.09, 3.50, 4.00
** 403511.242, 3759446.613, 68.15, 3.50, 4.00
** 403520.076, 3759451.030, 68.52, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000766     VOLUME   403385.280 3759659.813 70.03
   LOCATION L0000767     VOLUME   403389.548 3759652.357 69.98
   LOCATION L0000768     VOLUME   403393.816 3759644.901 70.08
   LOCATION L0000769     VOLUME   403398.083 3759637.446 70.40
   LOCATION L0000770     VOLUME   403402.351 3759629.990 70.43
   LOCATION L0000771     VOLUME   403406.619 3759622.534 70.34
   LOCATION L0000772     VOLUME   403410.886 3759615.078 70.21
   LOCATION L0000773     VOLUME   403415.154 3759607.622 70.06
   LOCATION L0000774     VOLUME   403419.422 3759600.167 69.93
   LOCATION L0000775     VOLUME   403423.689 3759592.711 69.84
   LOCATION L0000776     VOLUME   403427.957 3759585.255 69.78
   LOCATION L0000777     VOLUME   403432.225 3759577.799 69.72
   LOCATION L0000778     VOLUME   403436.492 3759570.343 69.64
   LOCATION L0000779     VOLUME   403440.760 3759562.888 69.55
   LOCATION L0000780     VOLUME   403445.028 3759555.432 69.44
   LOCATION L0000781     VOLUME   403449.295 3759547.976 69.28
   LOCATION L0000782     VOLUME   403453.563 3759540.520 69.16
   LOCATION L0000783     VOLUME   403457.831 3759533.065 69.03
   LOCATION L0000784     VOLUME   403462.098 3759525.609 68.88
   LOCATION L0000785     VOLUME   403466.366 3759518.153 68.78
   LOCATION L0000786     VOLUME   403470.634 3759510.697 68.77
   LOCATION L0000787     VOLUME   403474.901 3759503.241 68.75
   LOCATION L0000788     VOLUME   403479.169 3759495.786 68.72
   LOCATION L0000789     VOLUME   403483.437 3759488.330 68.63
   LOCATION L0000790     VOLUME   403487.705 3759480.874 68.52
   LOCATION L0000791     VOLUME   403491.972 3759473.418 68.41
   LOCATION L0000792     VOLUME   403496.240 3759465.962 68.30
   LOCATION L0000793     VOLUME   403500.508 3759458.507 68.20
   LOCATION L0000794     VOLUME   403504.775 3759451.051 68.09
   LOCATION L0000795     VOLUME   403510.793 3759446.613 68.07
   LOCATION L0000796     VOLUME   403518.524 3759450.254 68.28
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC South on Whittier Blvd to Washington Blvd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 4.99E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
```

```
** Nodes = 14
** 403526.824, 3759455.741, 68.65, 3.50, 4.00
** 403561.451, 3759395.666, 67.72, 3.50, 4.00
** 403590.654, 3759346.021, 66.66, 3.50, 4.00
** 403619.440, 3759297.627, 66.39, 3.50, 4.00
** 403665.747, 3759216.276, 64.97, 3.50, 4.00
** 403687.024, 3759180.815, 65.01, 3.50, 4.00
** 403697.453, 3759163.710, 64.84, 3.50, 4.00
** 403700.374, 3759155.367, 64.87, 3.50, 4.00
** 403700.791, 3759147.023, 64.93, 3.50, 4.00
** 403696.619, 3759138.679, 64.56, 3.50, 4.00
** 403687.441, 3759131.587, 64.03, 3.50, 4.00
** 403661.575, 3759130.753, 63.12, 3.50, 4.00
** 403635.293, 3759128.250, 62.14, 3.50, 4.00
** 403132.336, 3759031.102, 52.34, 3.50, 4.00
** ---------------------------------------------------------------------
   LOCATION L0000797     VOLUME   403528.969 3759452.019 68.52
   LOCATION L0000798     VOLUME   403533.259 3759444.576 68.43
   LOCATION L0000799     VOLUME   403537.549 3759437.134 68.33
   LOCATION L0000800     VOLUME   403541.839 3759429.691 68.23
   LOCATION L0000801     VOLUME   403546.129 3759422.248 68.12
   LOCATION L0000802     VOLUME   403550.419 3759414.805 68.02
   LOCATION L0000803     VOLUME   403554.709 3759407.362 67.93
   LOCATION L0000804     VOLUME   403558.999 3759399.919 67.88
   LOCATION L0000805     VOLUME   403563.318 3759392.492 67.86
   LOCATION L0000806     VOLUME   403567.673 3759385.088 67.79
   LOCATION L0000807     VOLUME   403572.029 3759377.683 67.69
   LOCATION L0000808     VOLUME   403576.385 3759370.278 67.54
   LOCATION L0000809     VOLUME   403580.740 3759362.873 67.43
   LOCATION L0000810     VOLUME   403585.096 3759355.469 67.29
   LOCATION L0000811     VOLUME   403589.452 3759348.064 67.11
   LOCATION L0000812     VOLUME   403593.834 3759340.675 66.91
   LOCATION L0000813     VOLUME   403598.226 3759333.291 66.71
   LOCATION L0000814     VOLUME   403602.617 3759325.908 66.55
   LOCATION L0000815     VOLUME   403607.009 3759318.525 66.41
   LOCATION L0000816     VOLUME   403611.401 3759311.141 66.32
   LOCATION L0000817     VOLUME   403615.793 3759303.758 66.26
   LOCATION L0000818     VOLUME   403620.161 3759296.361 66.20
   LOCATION L0000819     VOLUME   403624.410 3759288.895 66.08
   LOCATION L0000820     VOLUME   403628.660 3759281.429 65.92
   LOCATION L0000821     VOLUME   403632.910 3759273.963 65.87
   LOCATION L0000822     VOLUME   403637.160 3759266.497 65.80
   LOCATION L0000823     VOLUME   403641.410 3759259.031 65.70
   LOCATION L0000824     VOLUME   403645.660 3759251.565 65.55
   LOCATION L0000825     VOLUME   403649.909 3759244.099 65.38
   LOCATION L0000826     VOLUME   403654.159 3759236.633 65.20
   LOCATION L0000827     VOLUME   403658.409 3759229.167 65.08
   LOCATION L0000828     VOLUME   403662.659 3759221.701 65.03
   LOCATION L0000829     VOLUME   403666.955 3759214.262 65.06
   LOCATION L0000830     VOLUME   403671.375 3759206.896 65.18
   LOCATION L0000831     VOLUME   403675.795 3759199.529 65.30
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LOCATION L0000832     VOLUME   403680.215 3759192.163 65.28
LOCATION L0000833     VOLUME   403684.635 3759184.796 65.20
LOCATION L0000834     VOLUME   403689.079 3759177.444 65.11
LOCATION L0000835     VOLUME   403693.552 3759170.109 65.01
LOCATION L0000836     VOLUME   403697.816 3759162.676 64.98
LOCATION L0000837     VOLUME   403700.416 3759154.521 64.94
LOCATION L0000838     VOLUME   403700.306 3759146.054 64.83
LOCATION L0000839     VOLUME   403696.345 3759138.468 64.60
LOCATION L0000840     VOLUME   403689.548 3759133.215 64.32
LOCATION L0000841     VOLUME   403681.516 3759131.396 64.05
LOCATION L0000842     VOLUME   403672.929 3759131.119 63.79
LOCATION L0000843     VOLUME   403664.343 3759130.842 63.54
LOCATION L0000844     VOLUME   403655.780 3759130.201 63.27
LOCATION L0000845     VOLUME   403647.228 3759129.386 62.98
LOCATION L0000846     VOLUME   403638.676 3759128.572 62.66
LOCATION L0000847     VOLUME   403630.194 3759127.265 62.32
LOCATION L0000848     VOLUME   403621.759 3759125.636 61.99
LOCATION L0000849     VOLUME   403613.325 3759124.006 61.67
LOCATION L0000850     VOLUME   403604.890 3759122.377 61.37
LOCATION L0000851     VOLUME   403596.455 3759120.748 61.06
LOCATION L0000852     VOLUME   403588.020 3759119.119 60.80
LOCATION L0000853     VOLUME   403579.585 3759117.489 60.59
LOCATION L0000854     VOLUME   403571.150 3759115.860 60.42
LOCATION L0000855     VOLUME   403562.715 3759114.231 60.30
LOCATION L0000856     VOLUME   403554.280 3759112.602 60.14
LOCATION L0000857     VOLUME   403545.845 3759110.973 59.97
LOCATION L0000858     VOLUME   403537.411 3759109.343 59.86
LOCATION L0000859     VOLUME   403528.976 3759107.714 59.74
LOCATION L0000860     VOLUME   403520.541 3759106.085 59.62
LOCATION L0000861     VOLUME   403512.106 3759104.456 59.52
LOCATION L0000862     VOLUME   403503.671 3759102.826 59.41
LOCATION L0000863     VOLUME   403495.236 3759101.197 59.29
LOCATION L0000864     VOLUME   403486.801 3759099.568 59.11
LOCATION L0000865     VOLUME   403478.366 3759097.939 58.94
LOCATION L0000866     VOLUME   403469.931 3759096.310 58.75
LOCATION L0000867     VOLUME   403461.496 3759094.680 58.50
LOCATION L0000868     VOLUME   403453.062 3759093.051 58.26
LOCATION L0000869     VOLUME   403444.627 3759091.422 58.02
LOCATION L0000870     VOLUME   403436.192 3759089.793 57.76
LOCATION L0000871     VOLUME   403427.757 3759088.163 57.55
LOCATION L0000872     VOLUME   403419.322 3759086.534 57.37
LOCATION L0000873     VOLUME   403410.887 3759084.905 57.32
LOCATION L0000874     VOLUME   403402.452 3759083.276 57.24
LOCATION L0000875     VOLUME   403394.017 3759081.647 57.13
LOCATION L0000876     VOLUME   403385.582 3759080.017 57.09
LOCATION L0000877     VOLUME   403377.147 3759078.388 57.03
LOCATION L0000878     VOLUME   403368.713 3759076.759 56.95
LOCATION L0000879     VOLUME   403360.278 3759075.130 56.89
LOCATION L0000880     VOLUME   403351.843 3759073.500 56.84
LOCATION L0000881     VOLUME   403343.408 3759071.871 56.78
LOCATION L0000882     VOLUME   403334.973 3759070.242 56.72
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   LOCATION L0000883     VOLUME   403326.538 3759068.613 56.65
   LOCATION L0000884     VOLUME   403318.103 3759066.984 56.57
   LOCATION L0000885     VOLUME   403309.668 3759065.354 56.37
   LOCATION L0000886     VOLUME   403301.233 3759063.725 56.17
   LOCATION L0000887     VOLUME   403292.799 3759062.096 55.97
   LOCATION L0000888     VOLUME   403284.364 3759060.467 55.70
   LOCATION L0000889     VOLUME   403275.929 3759058.837 55.41
   LOCATION L0000890     VOLUME   403267.494 3759057.208 55.13
   LOCATION L0000891     VOLUME   403259.059 3759055.579 54.93
   LOCATION L0000892     VOLUME   403250.624 3759053.950 54.75
   LOCATION L0000893     VOLUME   403242.189 3759052.321 54.55
   LOCATION L0000894     VOLUME   403233.754 3759050.691 54.50
   LOCATION L0000895     VOLUME   403225.319 3759049.062 54.47
   LOCATION L0000896     VOLUME   403216.884 3759047.433 54.40
   LOCATION L0000897     VOLUME   403208.450 3759045.804 54.23
   LOCATION L0000898     VOLUME   403200.015 3759044.174 54.01
   LOCATION L0000899     VOLUME   403191.580 3759042.545 53.80
   LOCATION L0000900     VOLUME   403183.145 3759040.916 53.54
   LOCATION L0000901     VOLUME   403174.710 3759039.287 53.26
   LOCATION L0000902     VOLUME   403166.275 3759037.658 53.01
   LOCATION L0000903     VOLUME   403157.840 3759036.028 52.81
   LOCATION L0000904     VOLUME   403149.405 3759034.399 52.62
   LOCATION L0000905     VOLUME   403140.970 3759032.770 52.43
   LOCATION L0000906     VOLUME   403132.535 3759031.141 52.25
** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Northbound along Whitter Blvd
** PREFIX
** Length of Side = 10.11
** Configuration = Adjacent
** Emission Rate = 5.71E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 7
** 403541.907, 3759460.234, 69.09, 3.50, 4.70
** 403548.291, 3759465.199, 69.37, 3.50, 4.70
** 403540.134, 3759487.187, 69.75, 3.50, 4.70
** 403492.611, 3759570.175, 70.72, 3.50, 4.70
** 403452.890, 3759640.041, 71.88, 3.50, 4.70
** 403398.984, 3759724.801, 72.44, 3.50, 4.70
** 403007.874, 3760386.371, 71.03, 3.50, 4.70
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   LOCATION L0000908     VOLUME   403545.826 3759471.842 69.48
   LOCATION L0000909     VOLUME   403542.308 3759481.325 69.66
   LOCATION L0000910     VOLUME   403538.215 3759490.539 69.93
   LOCATION L0000911     VOLUME   403533.188 3759499.317 70.12
   LOCATION L0000912     VOLUME   403528.162 3759508.094 70.18
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LOCATION L0000913     VOLUME   403523.135 3759516.871 70.13
LOCATION L0000914     VOLUME   403518.109 3759525.649 70.26
LOCATION L0000915     VOLUME   403513.082 3759534.426 70.53
LOCATION L0000916     VOLUME   403508.056 3759543.204 70.83
LOCATION L0000917     VOLUME   403503.030 3759551.981 71.13
LOCATION L0000918     VOLUME   403498.003 3759560.759 71.07
LOCATION L0000919     VOLUME   403492.977 3759569.536 71.01
LOCATION L0000920     VOLUME   403487.976 3759578.328 70.99
LOCATION L0000921     VOLUME   403482.977 3759587.121 71.05
LOCATION L0000922     VOLUME   403477.977 3759595.914 71.14
LOCATION L0000923     VOLUME   403472.978 3759604.708 71.24
LOCATION L0000924     VOLUME   403467.979 3759613.501 71.43
LOCATION L0000925     VOLUME   403462.980 3759622.294 71.63
LOCATION L0000926     VOLUME   403457.981 3759631.087 71.77
LOCATION L0000927     VOLUME   403452.982 3759639.880 71.85
LOCATION L0000928     VOLUME   403447.562 3759648.419 71.87
LOCATION L0000929     VOLUME   403442.134 3759656.954 71.94
LOCATION L0000930     VOLUME   403436.705 3759665.489 72.05
LOCATION L0000931     VOLUME   403431.277 3759674.024 72.20
LOCATION L0000932     VOLUME   403425.849 3759682.559 72.31
LOCATION L0000933     VOLUME   403420.421 3759691.094 72.30
LOCATION L0000934     VOLUME   403414.993 3759699.629 72.34
LOCATION L0000935     VOLUME   403409.565 3759708.164 72.42
LOCATION L0000936     VOLUME   403404.137 3759716.699 72.47
LOCATION L0000937     VOLUME   403398.723 3759725.243 72.48
LOCATION L0000938     VOLUME   403393.576 3759733.950 72.47
LOCATION L0000939     VOLUME   403388.428 3759742.657 72.44
LOCATION L0000940     VOLUME   403383.281 3759751.364 72.37
LOCATION L0000941     VOLUME   403378.133 3759760.071 72.29
LOCATION L0000942     VOLUME   403372.986 3759768.778 72.20
LOCATION L0000943     VOLUME   403367.838 3759777.485 72.12
LOCATION L0000944     VOLUME   403362.691 3759786.192 72.06
LOCATION L0000945     VOLUME   403357.543 3759794.899 72.03
LOCATION L0000946     VOLUME   403352.396 3759803.606 72.02
LOCATION L0000947     VOLUME   403347.248 3759812.313 71.99
LOCATION L0000948     VOLUME   403342.101 3759821.020 71.94
LOCATION L0000949     VOLUME   403336.953 3759829.727 71.89
LOCATION L0000950     VOLUME   403331.806 3759838.434 71.81
LOCATION L0000951     VOLUME   403326.658 3759847.141 71.78
LOCATION L0000952     VOLUME   403321.511 3759855.848 71.74
LOCATION L0000953     VOLUME   403316.364 3759864.555 71.66
LOCATION L0000954     VOLUME   403311.216 3759873.262 71.53
LOCATION L0000955     VOLUME   403306.069 3759881.969 71.43
LOCATION L0000956     VOLUME   403300.921 3759890.677 71.36
LOCATION L0000957     VOLUME   403295.774 3759899.384 71.35
LOCATION L0000958     VOLUME   403290.626 3759908.091 71.32
LOCATION L0000959     VOLUME   403285.479 3759916.798 71.27
LOCATION L0000960     VOLUME   403280.331 3759925.505 71.20
LOCATION L0000961     VOLUME   403275.184 3759934.212 71.19
LOCATION L0000962     VOLUME   403270.036 3759942.919 71.22
LOCATION L0000963     VOLUME   403264.889 3759951.626 71.20
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   LOCATION L0000965     VOLUME   403254.594 3759969.040 71.01
   LOCATION L0000966     VOLUME   403249.446 3759977.747 70.98
   LOCATION L0000967     VOLUME   403244.299 3759986.454 70.96
   LOCATION L0000968     VOLUME   403239.151 3759995.161 70.92
   LOCATION L0000969     VOLUME   403234.004 3760003.868 70.88
   LOCATION L0000970     VOLUME   403228.856 3760012.575 70.84
   LOCATION L0000971     VOLUME   403223.709 3760021.282 70.80
   LOCATION L0000972     VOLUME   403218.561 3760029.989 70.75
   LOCATION L0000973     VOLUME   403213.414 3760038.696 70.67
   LOCATION L0000974     VOLUME   403208.267 3760047.403 70.56
   LOCATION L0000975     VOLUME   403203.119 3760056.110 70.47
   LOCATION L0000976     VOLUME   403197.972 3760064.817 70.46
   LOCATION L0000977     VOLUME   403192.824 3760073.525 70.49
   LOCATION L0000978     VOLUME   403187.677 3760082.232 70.47
   LOCATION L0000979     VOLUME   403182.529 3760090.939 70.45
   LOCATION L0000980     VOLUME   403177.382 3760099.646 70.42
   LOCATION L0000981     VOLUME   403172.234 3760108.353 70.40
   LOCATION L0000982     VOLUME   403167.087 3760117.060 70.47
   LOCATION L0000983     VOLUME   403161.939 3760125.767 70.47
   LOCATION L0000984     VOLUME   403156.792 3760134.474 70.40
   LOCATION L0000985     VOLUME   403151.644 3760143.181 70.29
   LOCATION L0000986     VOLUME   403146.497 3760151.888 70.32
   LOCATION L0000987     VOLUME   403141.349 3760160.595 70.34
   LOCATION L0000988     VOLUME   403136.202 3760169.302 70.30
   LOCATION L0000989     VOLUME   403131.054 3760178.009 70.19
   LOCATION L0000990     VOLUME   403125.907 3760186.716 70.07
   LOCATION L0000991     VOLUME   403120.759 3760195.423 69.98
   LOCATION L0000992     VOLUME   403115.612 3760204.130 69.95
   LOCATION L0000993     VOLUME   403110.464 3760212.837 70.08
   LOCATION L0000994     VOLUME   403105.317 3760221.544 70.15
   LOCATION L0000995     VOLUME   403100.170 3760230.251 70.18
   LOCATION L0000996     VOLUME   403095.022 3760238.958 70.24
   LOCATION L0000997     VOLUME   403089.875 3760247.665 70.34
   LOCATION L0000998     VOLUME   403084.727 3760256.373 70.40
   LOCATION L0000999     VOLUME   403079.580 3760265.080 70.43
   LOCATION L0001000     VOLUME   403074.432 3760273.787 70.55
   LOCATION L0001001     VOLUME   403069.285 3760282.494 70.74
   LOCATION L0001002     VOLUME   403064.137 3760291.201 70.91
   LOCATION L0001003     VOLUME   403058.990 3760299.908 71.04
   LOCATION L0001004     VOLUME   403053.842 3760308.615 71.16
   LOCATION L0001005     VOLUME   403048.695 3760317.322 71.30
   LOCATION L0001006     VOLUME   403043.547 3760326.029 71.36
   LOCATION L0001007     VOLUME   403038.400 3760334.736 71.25
   LOCATION L0001008     VOLUME   403033.252 3760343.443 71.12
   LOCATION L0001009     VOLUME   403028.105 3760352.150 70.98
   LOCATION L0001010     VOLUME   403022.957 3760360.857 70.90
   LOCATION L0001011     VOLUME   403017.810 3760369.564 71.03
   LOCATION L0001012     VOLUME   403012.662 3760378.271 71.07
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
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   SRCPARAM STCK1         7.42E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK2         7.42E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK3         7.42E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK4         7.42E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK5         7.42E-06     3.500   366.000      51.9       0.1
** LINE VOLUME Source ID = SLINE1
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   SRCPARAM L0000741     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000742     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000743     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000744     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000745     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000746     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000747     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000748     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000749     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000750     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000751     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000752     0.0000001623      3.50      4.00      4.96
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   SRCPARAM L0000763     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000764     0.0000001623      3.50      4.00      4.96
   SRCPARAM L0000765     0.0000001623      3.50      4.00      4.96
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   SRCPARAM L0000767     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000769     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000771     0.00000009032      3.50      4.00      1.63
   SRCPARAM L0000772     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000775     0.00000009032      3.50      4.00      1.63
   SRCPARAM L0000776     0.00000009032      3.50      4.00      1.63
   SRCPARAM L0000777     0.00000009032      3.50      4.00      1.63
   SRCPARAM L0000778     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000781     0.00000009032      3.50      4.00      1.63
   SRCPARAM L0000782     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000783     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000785     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000787     0.00000009032      3.50      4.00      1.63
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   SRCPARAM L0000796     0.00000009032      3.50      4.00      1.63
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** LINE VOLUME Source ID = SLINE3
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SRCPARAM L0000876     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000877     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000878     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000879     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000880     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000881     0.00000004536      3.50      4.00      1.63
SRCPARAM L0000882     0.00000004536      3.50      4.00      1.63
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   SRCPARAM L0000883     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000884     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000885     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000886     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000887     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000888     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000889     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000890     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000891     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000892     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000893     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000894     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000895     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000896     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000897     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000898     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000899     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000900     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000901     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000902     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000903     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000904     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000905     0.00000004536      3.50      4.00      1.63
   SRCPARAM L0000906     0.00000004536      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000907     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000908     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000909     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000910     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000911     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000912     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000913     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000914     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000915     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000916     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000917     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000918     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000919     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000920     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000921     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000922     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000923     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000924     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000925     0.00000005387      3.50      4.70      1.63
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   SRCPARAM L0000927     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000928     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000929     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000930     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000931     0.00000005387      3.50      4.70      1.63
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SRCPARAM L0000932     0.00000005387      3.50      4.70      1.63
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SRCPARAM L0000934     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000935     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000936     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000937     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000938     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000939     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000940     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000941     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000942     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000943     0.00000005387      3.50      4.70      1.63
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SRCPARAM L0000947     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000948     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000949     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000950     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000951     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000952     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000953     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000954     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000955     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000956     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000957     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000958     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000959     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000960     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000961     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000962     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000963     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000964     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000965     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000966     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000967     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000968     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000969     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000970     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000971     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000972     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000973     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000974     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000975     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000976     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000977     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000978     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000979     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000980     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000981     0.00000005387      3.50      4.70      1.63
SRCPARAM L0000982     0.00000005387      3.50      4.70      1.63
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   SRCPARAM L0000983     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000984     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000985     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000986     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000987     0.00000005387      3.50      4.70      1.63
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   SRCPARAM L0000991     0.00000005387      3.50      4.70      1.63
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   SRCPARAM L0000996     0.00000005387      3.50      4.70      1.63
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   SRCPARAM L0000998     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0000999     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001000     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001001     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001002     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001003     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001004     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001005     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001006     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001007     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001008     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001009     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001010     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001011     0.00000005387      3.50      4.70      1.63
   SRCPARAM L0001012     0.00000005387      3.50      4.70      1.63
** ------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1          10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2          10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3          10.67    10.67    10.67    10.67    10.67    10.67
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BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66

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BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00

XBADJ    STCK1           -18.55   -25.03   -30.75   -35.54   -39.24   -41.98
XBADJ    STCK1           -50.16   -56.82   -61.76   -77.50   -92.58  -104.85
XBADJ    STCK1          -113.93  -119.55  -121.54  -151.31  -178.11  -199.50
XBADJ    STCK1          -214.83  -225.08  -228.50  -224.98  -214.62  -201.31
XBADJ    STCK1          -196.71  -186.13  -169.90  -148.51  -122.60   -93.84
XBADJ    STCK1           -64.84   -33.87    -2.58     3.41    -4.11   -11.50

XBADJ    STCK2           -61.85   -77.35   -90.51  -100.91  -108.25  -112.51
XBADJ    STCK2          -120.08  -124.01  -124.17  -133.23  -139.95  -142.41
XBADJ    STCK2          -140.55  -134.41  -124.20  -141.67  -156.48  -166.53
XBADJ    STCK2          -171.52  -172.76  -168.74  -159.61  -145.62  -130.77
XBADJ    STCK2          -126.79  -118.94  -107.49   -92.77   -75.23   -56.27
XBADJ    STCK2           -38.22   -19.01     0.07    -6.22   -25.74   -44.47

XBADJ    STCK3           -31.60   -41.18   -49.50   -56.31   -61.42   -64.88
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XBADJ	STCK3	-73.09	-79.09	-82.68	-96.44	-108.96	-118.18
XBADJ	STCK3	-123.81	-125.67	-123.72	-149.47	-172.32	-189.93
XBADJ	STCK3	-201.77	-208.94	-209.75	-204.20	-192.44	-178.41
XBADJ	STCK3	-173.78	-163.87	-148.98	-129.57	-106.21	-80.50
XBADJ	STCK3	-54.96	-27.75	-0.41	1.58	-9.90	-21.07
XBADJ	STCK4	-84.78	-104.42	-120.88	-133.68	-142.41	-147.03
XBADJ	STCK4	-153.92	-156.13	-153.59	-159.07	-161.41	-158.85
XBADJ	STCK4	-151.46	-139.47	-123.24	-134.73	-143.77	-148.44
XBADJ	STCK4	-148.60	-145.70	-138.37	-126.84	-111.45	-96.25
XBADJ	STCK4	-92.95	-86.83	-78.07	-66.94	-53.77	-39.84
XBADJ	STCK4	-27.31	-13.95	-0.88	-13.16	-38.44	-62.56
XBADJ	STCK5	-97.03	-123.24	-145.70	-163.73	0.00	0.00
XBADJ	STCK5	-193.72	-196.86	-194.01	-197.95	-197.57	-191.19
XBADJ	STCK5	-179.00	-161.37	-138.84	-143.56	-145.55	-143.12
XBADJ	STCK5	-136.34	-126.87	-113.55	-96.78	0.00	0.00
XBADJ	STCK5	-53.15	-46.10	-37.65	-28.06	-17.61	-7.49
XBADJ	STCK5	0.23	7.95	14.72	-4.33	-36.66	-67.88
YBADJ	STCK1	-35.50	-15.01	5.51	24.55	42.84	59.48
YBADJ	STCK1	77.36	87.00	94.00	98.14	100.03	98.88
YBADJ	STCK1	94.72	87.69	79.67	73.27	64.65	54.07
YBADJ	STCK1	35.50	15.01	-5.51	-24.55	-42.84	-59.48
YBADJ	STCK1	-77.36	-87.00	-94.00	-98.14	-100.03	-98.88
YBADJ	STCK1	-94.72	-87.69	-79.67	-73.27	-64.65	-54.07
YBADJ	STCK2	20.23	32.36	43.07	51.16	57.70	62.13
YBADJ	STCK2	67.72	65.37	61.03	54.84	47.70	39.12
YBADJ	STCK2	29.35	18.69	9.13	3.35	-2.53	-8.34
YBADJ	STCK2	-20.23	-32.36	-43.07	-51.16	-57.70	-62.13
YBADJ	STCK2	-67.72	-65.37	-61.03	-54.84	-47.70	-39.12
YBADJ	STCK2	-29.35	-18.69	-9.13	-3.35	2.53	8.34
YBADJ	STCK3	-16.56	1.38	18.84	34.42	48.96	61.65
YBADJ	STCK3	75.52	81.21	84.43	85.08	83.88	80.13
YBADJ	STCK3	73.94	65.51	56.76	50.34	42.39	33.15
YBADJ	STCK3	16.56	-1.38	-18.84	-34.42	-48.96	-61.65
YBADJ	STCK3	-75.52	-81.21	-84.43	-85.08	-83.88	-80.13
YBADJ	STCK3	-73.94	-65.51	-56.76	-50.34	-42.39	-33.15
YBADJ	STCK4	46.06	53.82	59.50	62.07	62.76	61.18
YBADJ	STCK4	60.79	52.66	42.94	31.91	20.64	8.74
YBADJ	STCK4	-3.42	-15.48	-25.39	-30.48	-34.65	-37.76
YBADJ	STCK4	-46.06	-53.82	-59.50	-62.07	-62.76	-61.18
YBADJ	STCK4	-60.79	-52.66	-42.94	-31.91	-20.64	-8.74
YBADJ	STCK4	3.42	15.48	25.39	30.48	34.65	37.76
YBADJ	STCK5	84.95	89.98	91.85	89.62	0.00	0.00
YBADJ	STCK5	69.61	54.44	37.62	19.65	1.82	-16.07
YBADJ	STCK5	-33.48	-49.86	-63.06	-70.28	-75.38	-78.18

```
   YBADJ    STCK5          -84.95   -89.98   -91.85   -89.62     0.00     0.00
   YBADJ    STCK5          -69.61   -54.44   -37.62   -19.65    -1.82    16.07
   YBADJ    STCK5           33.48    49.86    63.06    70.28    75.38    78.18

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "19391 Whittier Blvd BP 2YR.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC"
   PROFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL"
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "19391 WHITTIER BLVD BP 2YR.AD\PE00GALL.PLT" 31
   SUMMFILE "19391 Whittier Blvd BP 2YR.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            7 Warning Message(s)
 A Total of            0 Informational Message(s)
```

```
   ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     408        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     409        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     410        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     411        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     412        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
ME W186     896       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used         0.50
ME W187     896       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

**********************************
*** SETUP Finishes Successfully ***
**********************************


*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2YR 2025-2026                          ***        18:34:15
                                                                                                          PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

** Model Options Selected:
     * Model Uses Regulatory DEFAULT Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE  =  F
     * Model Uses NO WET DEPLETION. WETDPLT  =  F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   278 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes:    278 Source(s);       1 Source Group(s); and     450 Receptor(s)
```

```
              with:      5 POINT(s), including
                         0 POINTCAP(s) and      0 POINTHOR(s)
               and:    273 VOLUME source(s)
               and:      0 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 RLINE/RLINEXT source(s)
               and:      0 OPENPIT source(s)
               and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
               and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
        Model Outputs Tables of PERIOD Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
        Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                           ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      4.0 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   19391 Whittier Blvd BP 2YR.err
**File for Summary of Results:   19391 Whittier Blvd BP 2YR.sum

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2YR 2025-2026                                       ***        18:34:15
                                                                                                                      PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                   BASE     STACK   STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                      VARY BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

STCK1           0   0.74200E-05  403193.6 3759565.7    66.8     3.50   366.00    51.90     0.10    YES     YES   NO
```

STCK2	0	0.74200E-05	403256.0	3759598.7	67.4	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK3	0	0.74200E-05	403214.6	3759575.3	66.9	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK4	0	0.74200E-05	403285.5	3759616.8	67.6	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK5	0	0.74200E-05	403325.9	3759622.1	67.8	3.50	366.00	51.90	0.10	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000740	0	0.16230E-06	403373.9	3759654.0	68.8	3.50	4.00	4.96	YES	
L0000741	0	0.16230E-06	403367.6	3759648.2	68.2	3.50	4.00	4.96	YES	
L0000742	0	0.16230E-06	403361.9	3759641.8	68.2	3.50	4.00	4.96	YES	
L0000743	0	0.16230E-06	403355.7	3759635.8	68.2	3.50	4.00	4.96	YES	
L0000744	0	0.16230E-06	403348.6	3759631.2	68.1	3.50	4.00	4.96	YES	
L0000745	0	0.16230E-06	403341.0	3759627.0	68.1	3.50	4.00	4.96	YES	
L0000746	0	0.16230E-06	403333.5	3759622.9	68.0	3.50	4.00	4.96	YES	
L0000747	0	0.16230E-06	403326.0	3759618.8	67.8	3.50	4.00	4.96	YES	
L0000748	0	0.16230E-06	403318.5	3759614.6	67.7	3.50	4.00	4.96	YES	
L0000749	0	0.16230E-06	403311.0	3759610.4	67.7	3.50	4.00	4.96	YES	
L0000750	0	0.16230E-06	403303.5	3759606.1	67.6	3.50	4.00	4.96	YES	
L0000751	0	0.16230E-06	403296.0	3759601.9	67.6	3.50	4.00	4.96	YES	
L0000752	0	0.16230E-06	403288.6	3759597.7	67.5	3.50	4.00	4.96	YES	
L0000753	0	0.16230E-06	403281.1	3759593.4	67.5	3.50	4.00	4.96	YES	
L0000754	0	0.16230E-06	403273.6	3759589.2	67.4	3.50	4.00	4.96	YES	
L0000755	0	0.16230E-06	403266.1	3759585.0	67.4	3.50	4.00	4.96	YES	
L0000756	0	0.16230E-06	403258.6	3759580.7	67.2	3.50	4.00	4.96	YES	
L0000757	0	0.16230E-06	403251.2	3759576.5	67.1	3.50	4.00	4.96	YES	
L0000758	0	0.16230E-06	403243.7	3759572.3	67.0	3.50	4.00	4.96	YES	
L0000759	0	0.16230E-06	403236.2	3759568.1	66.9	3.50	4.00	4.96	YES	
L0000760	0	0.16230E-06	403228.7	3759563.8	66.8	3.50	4.00	4.96	YES	
L0000761	0	0.16230E-06	403221.3	3759559.6	66.8	3.50	4.00	4.96	YES	
L0000762	0	0.16230E-06	403213.8	3759555.4	66.7	3.50	4.00	4.96	YES	
L0000763	0	0.16230E-06	403206.3	3759551.1	66.5	3.50	4.00	4.96	YES	
L0000764	0	0.16230E-06	403198.8	3759546.9	66.2	3.50	4.00	4.96	YES	
L0000765	0	0.16230E-06	403191.3	3759542.7	65.9	3.50	4.00	4.96	YES	
L0000766	0	0.90320E-07	403385.3	3759659.8	70.0	3.50	4.00	1.63	YES	
L0000767	0	0.90320E-07	403389.5	3759652.4	70.0	3.50	4.00	1.63	YES	
L0000768	0	0.90320E-07	403393.8	3759644.9	70.1	3.50	4.00	1.63	YES	
L0000769	0	0.90320E-07	403398.1	3759637.4	70.4	3.50	4.00	1.63	YES	
L0000770	0	0.90320E-07	403402.4	3759630.0	70.4	3.50	4.00	1.63	YES	
L0000771	0	0.90320E-07	403406.6	3759622.5	70.3	3.50	4.00	1.63	YES	
L0000772	0	0.90320E-07	403410.9	3759615.1	70.2	3.50	4.00	1.63	YES	

L0000773	0	0.90320E-07	403415.2	3759607.6	70.1	3.50	4.00	1.63	YES
L0000774	0	0.90320E-07	403419.4	3759600.2	69.9	3.50	4.00	1.63	YES
L0000775	0	0.90320E-07	403423.7	3759592.7	69.8	3.50	4.00	1.63	YES
L0000776	0	0.90320E-07	403428.0	3759585.3	69.8	3.50	4.00	1.63	YES
L0000777	0	0.90320E-07	403432.2	3759577.8	69.7	3.50	4.00	1.63	YES
L0000778	0	0.90320E-07	403436.5	3759570.3	69.6	3.50	4.00	1.63	YES
L0000779	0	0.90320E-07	403440.8	3759562.9	69.5	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000780	0	0.90320E-07	403445.0	3759555.4	69.4	3.50	4.00	1.63	YES	
L0000781	0	0.90320E-07	403449.3	3759548.0	69.3	3.50	4.00	1.63	YES	
L0000782	0	0.90320E-07	403453.6	3759540.5	69.2	3.50	4.00	1.63	YES	
L0000783	0	0.90320E-07	403457.8	3759533.1	69.0	3.50	4.00	1.63	YES	
L0000784	0	0.90320E-07	403462.1	3759525.6	68.9	3.50	4.00	1.63	YES	
L0000785	0	0.90320E-07	403466.4	3759518.2	68.8	3.50	4.00	1.63	YES	
L0000786	0	0.90320E-07	403470.6	3759510.7	68.8	3.50	4.00	1.63	YES	
L0000787	0	0.90320E-07	403474.9	3759503.2	68.8	3.50	4.00	1.63	YES	
L0000788	0	0.90320E-07	403479.2	3759495.8	68.7	3.50	4.00	1.63	YES	
L0000789	0	0.90320E-07	403483.4	3759488.3	68.6	3.50	4.00	1.63	YES	
L0000790	0	0.90320E-07	403487.7	3759480.9	68.5	3.50	4.00	1.63	YES	
L0000791	0	0.90320E-07	403492.0	3759473.4	68.4	3.50	4.00	1.63	YES	
L0000792	0	0.90320E-07	403496.2	3759466.0	68.3	3.50	4.00	1.63	YES	
L0000793	0	0.90320E-07	403500.5	3759458.5	68.2	3.50	4.00	1.63	YES	
L0000794	0	0.90320E-07	403504.8	3759451.1	68.1	3.50	4.00	1.63	YES	
L0000795	0	0.90320E-07	403510.8	3759446.6	68.1	3.50	4.00	1.63	YES	
L0000796	0	0.90320E-07	403518.5	3759450.3	68.3	3.50	4.00	1.63	YES	
L0000797	0	0.45360E-07	403529.0	3759452.0	68.5	3.50	4.00	1.63	YES	
L0000798	0	0.45360E-07	403533.3	3759444.6	68.4	3.50	4.00	1.63	YES	
L0000799	0	0.45360E-07	403537.5	3759437.1	68.3	3.50	4.00	1.63	YES	
L0000800	0	0.45360E-07	403541.8	3759429.7	68.2	3.50	4.00	1.63	YES	
L0000801	0	0.45360E-07	403546.1	3759422.2	68.1	3.50	4.00	1.63	YES	
L0000802	0	0.45360E-07	403550.4	3759414.8	68.0	3.50	4.00	1.63	YES	
L0000803	0	0.45360E-07	403554.7	3759407.4	67.9	3.50	4.00	1.63	YES	
L0000804	0	0.45360E-07	403559.0	3759399.9	67.9	3.50	4.00	1.63	YES	
L0000805	0	0.45360E-07	403563.3	3759392.5	67.9	3.50	4.00	1.63	YES	
L0000806	0	0.45360E-07	403567.7	3759385.1	67.8	3.50	4.00	1.63	YES	
L0000807	0	0.45360E-07	403572.0	3759377.7	67.7	3.50	4.00	1.63	YES	
L0000808	0	0.45360E-07	403576.4	3759370.3	67.5	3.50	4.00	1.63	YES	
L0000809	0	0.45360E-07	403580.7	3759362.9	67.4	3.50	4.00	1.63	YES	

L0000810	0	0.45360E-07	403585.1	3759355.5	67.3	3.50	4.00	1.63	YES
L0000811	0	0.45360E-07	403589.5	3759348.1	67.1	3.50	4.00	1.63	YES
L0000812	0	0.45360E-07	403593.8	3759340.7	66.9	3.50	4.00	1.63	YES
L0000813	0	0.45360E-07	403598.2	3759333.3	66.7	3.50	4.00	1.63	YES
L0000814	0	0.45360E-07	403602.6	3759325.9	66.5	3.50	4.00	1.63	YES
L0000815	0	0.45360E-07	403607.0	3759318.5	66.4	3.50	4.00	1.63	YES
L0000816	0	0.45360E-07	403611.4	3759311.1	66.3	3.50	4.00	1.63	YES
L0000817	0	0.45360E-07	403615.8	3759303.8	66.3	3.50	4.00	1.63	YES
L0000818	0	0.45360E-07	403620.2	3759296.4	66.2	3.50	4.00	1.63	YES
L0000819	0	0.45360E-07	403624.4	3759288.9	66.1	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000820	0	0.45360E-07	403628.7	3759281.4	65.9	3.50	4.00	1.63	YES	
L0000821	0	0.45360E-07	403632.9	3759274.0	65.9	3.50	4.00	1.63	YES	
L0000822	0	0.45360E-07	403637.2	3759266.5	65.8	3.50	4.00	1.63	YES	
L0000823	0	0.45360E-07	403641.4	3759259.0	65.7	3.50	4.00	1.63	YES	
L0000824	0	0.45360E-07	403645.7	3759251.6	65.5	3.50	4.00	1.63	YES	
L0000825	0	0.45360E-07	403649.9	3759244.1	65.4	3.50	4.00	1.63	YES	
L0000826	0	0.45360E-07	403654.2	3759236.6	65.2	3.50	4.00	1.63	YES	
L0000827	0	0.45360E-07	403658.4	3759229.2	65.1	3.50	4.00	1.63	YES	
L0000828	0	0.45360E-07	403662.7	3759221.7	65.0	3.50	4.00	1.63	YES	
L0000829	0	0.45360E-07	403667.0	3759214.3	65.1	3.50	4.00	1.63	YES	
L0000830	0	0.45360E-07	403671.4	3759206.9	65.2	3.50	4.00	1.63	YES	
L0000831	0	0.45360E-07	403675.8	3759199.5	65.3	3.50	4.00	1.63	YES	
L0000832	0	0.45360E-07	403680.2	3759192.2	65.3	3.50	4.00	1.63	YES	
L0000833	0	0.45360E-07	403684.6	3759184.8	65.2	3.50	4.00	1.63	YES	
L0000834	0	0.45360E-07	403689.1	3759177.4	65.1	3.50	4.00	1.63	YES	
L0000835	0	0.45360E-07	403693.6	3759170.1	65.0	3.50	4.00	1.63	YES	
L0000836	0	0.45360E-07	403697.8	3759162.7	65.0	3.50	4.00	1.63	YES	
L0000837	0	0.45360E-07	403700.4	3759154.5	64.9	3.50	4.00	1.63	YES	
L0000838	0	0.45360E-07	403700.3	3759146.1	64.8	3.50	4.00	1.63	YES	
L0000839	0	0.45360E-07	403696.3	3759138.5	64.6	3.50	4.00	1.63	YES	
L0000840	0	0.45360E-07	403689.5	3759133.2	64.3	3.50	4.00	1.63	YES	
L0000841	0	0.45360E-07	403681.5	3759131.4	64.0	3.50	4.00	1.63	YES	
L0000842	0	0.45360E-07	403672.9	3759131.1	63.8	3.50	4.00	1.63	YES	
L0000843	0	0.45360E-07	403664.3	3759130.8	63.5	3.50	4.00	1.63	YES	
L0000844	0	0.45360E-07	403655.8	3759130.2	63.3	3.50	4.00	1.63	YES	
L0000845	0	0.45360E-07	403647.2	3759129.4	63.0	3.50	4.00	1.63	YES	
L0000846	0	0.45360E-07	403638.7	3759128.6	62.7	3.50	4.00	1.63	YES	

L0000847	0	0.45360E-07	403630.2	3759127.3	62.3	3.50	4.00	1.63	YES
L0000848	0	0.45360E-07	403621.8	3759125.6	62.0	3.50	4.00	1.63	YES
L0000849	0	0.45360E-07	403613.3	3759124.0	61.7	3.50	4.00	1.63	YES
L0000850	0	0.45360E-07	403604.9	3759122.4	61.4	3.50	4.00	1.63	YES
L0000851	0	0.45360E-07	403596.5	3759120.7	61.1	3.50	4.00	1.63	YES
L0000852	0	0.45360E-07	403588.0	3759119.1	60.8	3.50	4.00	1.63	YES
L0000853	0	0.45360E-07	403579.6	3759117.5	60.6	3.50	4.00	1.63	YES
L0000854	0	0.45360E-07	403571.1	3759115.9	60.4	3.50	4.00	1.63	YES
L0000855	0	0.45360E-07	403562.7	3759114.2	60.3	3.50	4.00	1.63	YES
L0000856	0	0.45360E-07	403554.3	3759112.6	60.1	3.50	4.00	1.63	YES
L0000857	0	0.45360E-07	403545.8	3759111.0	60.0	3.50	4.00	1.63	YES
L0000858	0	0.45360E-07	403537.4	3759109.3	59.9	3.50	4.00	1.63	YES
L0000859	0	0.45360E-07	403529.0	3759107.7	59.7	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000860	0	0.45360E-07	403520.5	3759106.1	59.6	3.50	4.00	1.63	YES	
L0000861	0	0.45360E-07	403512.1	3759104.5	59.5	3.50	4.00	1.63	YES	
L0000862	0	0.45360E-07	403503.7	3759102.8	59.4	3.50	4.00	1.63	YES	
L0000863	0	0.45360E-07	403495.2	3759101.2	59.3	3.50	4.00	1.63	YES	
L0000864	0	0.45360E-07	403486.8	3759099.6	59.1	3.50	4.00	1.63	YES	
L0000865	0	0.45360E-07	403478.4	3759097.9	58.9	3.50	4.00	1.63	YES	
L0000866	0	0.45360E-07	403469.9	3759096.3	58.8	3.50	4.00	1.63	YES	
L0000867	0	0.45360E-07	403461.5	3759094.7	58.5	3.50	4.00	1.63	YES	
L0000868	0	0.45360E-07	403453.1	3759093.1	58.3	3.50	4.00	1.63	YES	
L0000869	0	0.45360E-07	403444.6	3759091.4	58.0	3.50	4.00	1.63	YES	
L0000870	0	0.45360E-07	403436.2	3759089.8	57.8	3.50	4.00	1.63	YES	
L0000871	0	0.45360E-07	403427.8	3759088.2	57.5	3.50	4.00	1.63	YES	
L0000872	0	0.45360E-07	403419.3	3759086.5	57.4	3.50	4.00	1.63	YES	
L0000873	0	0.45360E-07	403410.9	3759084.9	57.3	3.50	4.00	1.63	YES	
L0000874	0	0.45360E-07	403402.5	3759083.3	57.2	3.50	4.00	1.63	YES	
L0000875	0	0.45360E-07	403394.0	3759081.6	57.1	3.50	4.00	1.63	YES	
L0000876	0	0.45360E-07	403385.6	3759080.0	57.1	3.50	4.00	1.63	YES	
L0000877	0	0.45360E-07	403377.1	3759078.4	57.0	3.50	4.00	1.63	YES	
L0000878	0	0.45360E-07	403368.7	3759076.8	56.9	3.50	4.00	1.63	YES	
L0000879	0	0.45360E-07	403360.3	3759075.1	56.9	3.50	4.00	1.63	YES	
L0000880	0	0.45360E-07	403351.8	3759073.5	56.8	3.50	4.00	1.63	YES	
L0000881	0	0.45360E-07	403343.4	3759071.9	56.8	3.50	4.00	1.63	YES	
L0000882	0	0.45360E-07	403335.0	3759070.2	56.7	3.50	4.00	1.63	YES	
L0000883	0	0.45360E-07	403326.5	3759068.6	56.6	3.50	4.00	1.63	YES	

L0000884	0	0.45360E-07	403318.1	3759067.0	56.6	3.50	4.00	1.63	YES
L0000885	0	0.45360E-07	403309.7	3759065.4	56.4	3.50	4.00	1.63	YES
L0000886	0	0.45360E-07	403301.2	3759063.7	56.2	3.50	4.00	1.63	YES
L0000887	0	0.45360E-07	403292.8	3759062.1	56.0	3.50	4.00	1.63	YES
L0000888	0	0.45360E-07	403284.4	3759060.5	55.7	3.50	4.00	1.63	YES
L0000889	0	0.45360E-07	403275.9	3759058.8	55.4	3.50	4.00	1.63	YES
L0000890	0	0.45360E-07	403267.5	3759057.2	55.1	3.50	4.00	1.63	YES
L0000891	0	0.45360E-07	403259.1	3759055.6	54.9	3.50	4.00	1.63	YES
L0000892	0	0.45360E-07	403250.6	3759053.9	54.8	3.50	4.00	1.63	YES
L0000893	0	0.45360E-07	403242.2	3759052.3	54.5	3.50	4.00	1.63	YES
L0000894	0	0.45360E-07	403233.8	3759050.7	54.5	3.50	4.00	1.63	YES
L0000895	0	0.45360E-07	403225.3	3759049.1	54.5	3.50	4.00	1.63	YES
L0000896	0	0.45360E-07	403216.9	3759047.4	54.4	3.50	4.00	1.63	YES
L0000897	0	0.45360E-07	403208.5	3759045.8	54.2	3.50	4.00	1.63	YES
L0000898	0	0.45360E-07	403200.0	3759044.2	54.0	3.50	4.00	1.63	YES
L0000899	0	0.45360E-07	403191.6	3759042.5	53.8	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000900	0	0.45360E-07	403183.1	3759040.9	53.5	3.50	4.00	1.63	YES	
L0000901	0	0.45360E-07	403174.7	3759039.3	53.3	3.50	4.00	1.63	YES	
L0000902	0	0.45360E-07	403166.3	3759037.7	53.0	3.50	4.00	1.63	YES	
L0000903	0	0.45360E-07	403157.8	3759036.0	52.8	3.50	4.00	1.63	YES	
L0000904	0	0.45360E-07	403149.4	3759034.4	52.6	3.50	4.00	1.63	YES	
L0000905	0	0.45360E-07	403141.0	3759032.8	52.4	3.50	4.00	1.63	YES	
L0000906	0	0.45360E-07	403132.5	3759031.1	52.2	3.50	4.00	1.63	YES	
L0000907	0	0.53870E-07	403545.9	3759463.3	69.3	3.50	4.70	1.63	YES	
L0000908	0	0.53870E-07	403545.8	3759471.8	69.5	3.50	4.70	1.63	YES	
L0000909	0	0.53870E-07	403542.3	3759481.3	69.7	3.50	4.70	1.63	YES	
L0000910	0	0.53870E-07	403538.2	3759490.5	69.9	3.50	4.70	1.63	YES	
L0000911	0	0.53870E-07	403533.2	3759499.3	70.1	3.50	4.70	1.63	YES	
L0000912	0	0.53870E-07	403528.2	3759508.1	70.2	3.50	4.70	1.63	YES	
L0000913	0	0.53870E-07	403523.1	3759516.9	70.1	3.50	4.70	1.63	YES	
L0000914	0	0.53870E-07	403518.1	3759525.6	70.3	3.50	4.70	1.63	YES	
L0000915	0	0.53870E-07	403513.1	3759534.4	70.5	3.50	4.70	1.63	YES	
L0000916	0	0.53870E-07	403508.1	3759543.2	70.8	3.50	4.70	1.63	YES	
L0000917	0	0.53870E-07	403503.0	3759552.0	71.1	3.50	4.70	1.63	YES	
L0000918	0	0.53870E-07	403498.0	3759560.8	71.1	3.50	4.70	1.63	YES	
L0000919	0	0.53870E-07	403493.0	3759569.5	71.0	3.50	4.70	1.63	YES	
L0000920	0	0.53870E-07	403488.0	3759578.3	71.0	3.50	4.70	1.63	YES	

L0000921	0	0.53870E-07	403483.0	3759587.1	71.0	3.50	4.70	1.63	YES
L0000922	0	0.53870E-07	403478.0	3759595.9	71.1	3.50	4.70	1.63	YES
L0000923	0	0.53870E-07	403473.0	3759604.7	71.2	3.50	4.70	1.63	YES
L0000924	0	0.53870E-07	403468.0	3759613.5	71.4	3.50	4.70	1.63	YES
L0000925	0	0.53870E-07	403463.0	3759622.3	71.6	3.50	4.70	1.63	YES
L0000926	0	0.53870E-07	403458.0	3759631.1	71.8	3.50	4.70	1.63	YES
L0000927	0	0.53870E-07	403453.0	3759639.9	71.8	3.50	4.70	1.63	YES
L0000928	0	0.53870E-07	403447.6	3759648.4	71.9	3.50	4.70	1.63	YES
L0000929	0	0.53870E-07	403442.1	3759657.0	71.9	3.50	4.70	1.63	YES
L0000930	0	0.53870E-07	403436.7	3759665.5	72.0	3.50	4.70	1.63	YES
L0000931	0	0.53870E-07	403431.3	3759674.0	72.2	3.50	4.70	1.63	YES
L0000932	0	0.53870E-07	403425.8	3759682.6	72.3	3.50	4.70	1.63	YES
L0000933	0	0.53870E-07	403420.4	3759691.1	72.3	3.50	4.70	1.63	YES
L0000934	0	0.53870E-07	403415.0	3759699.6	72.3	3.50	4.70	1.63	YES
L0000935	0	0.53870E-07	403409.6	3759708.2	72.4	3.50	4.70	1.63	YES
L0000936	0	0.53870E-07	403404.1	3759716.7	72.5	3.50	4.70	1.63	YES
L0000937	0	0.53870E-07	403398.7	3759725.2	72.5	3.50	4.70	1.63	YES
L0000938	0	0.53870E-07	403393.6	3759733.9	72.5	3.50	4.70	1.63	YES
L0000939	0	0.53870E-07	403388.4	3759742.7	72.4	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000940	0	0.53870E-07	403383.3	3759751.4	72.4	3.50	4.70	1.63	YES	
L0000941	0	0.53870E-07	403378.1	3759760.1	72.3	3.50	4.70	1.63	YES	
L0000942	0	0.53870E-07	403373.0	3759768.8	72.2	3.50	4.70	1.63	YES	
L0000943	0	0.53870E-07	403367.8	3759777.5	72.1	3.50	4.70	1.63	YES	
L0000944	0	0.53870E-07	403362.7	3759786.2	72.1	3.50	4.70	1.63	YES	
L0000945	0	0.53870E-07	403357.5	3759794.9	72.0	3.50	4.70	1.63	YES	
L0000946	0	0.53870E-07	403352.4	3759803.6	72.0	3.50	4.70	1.63	YES	
L0000947	0	0.53870E-07	403347.2	3759812.3	72.0	3.50	4.70	1.63	YES	
L0000948	0	0.53870E-07	403342.1	3759821.0	71.9	3.50	4.70	1.63	YES	
L0000949	0	0.53870E-07	403337.0	3759829.7	71.9	3.50	4.70	1.63	YES	
L0000950	0	0.53870E-07	403331.8	3759838.4	71.8	3.50	4.70	1.63	YES	
L0000951	0	0.53870E-07	403326.7	3759847.1	71.8	3.50	4.70	1.63	YES	
L0000952	0	0.53870E-07	403321.5	3759855.8	71.7	3.50	4.70	1.63	YES	
L0000953	0	0.53870E-07	403316.4	3759864.6	71.7	3.50	4.70	1.63	YES	
L0000954	0	0.53870E-07	403311.2	3759873.3	71.5	3.50	4.70	1.63	YES	
L0000955	0	0.53870E-07	403306.1	3759882.0	71.4	3.50	4.70	1.63	YES	
L0000956	0	0.53870E-07	403300.9	3759890.7	71.4	3.50	4.70	1.63	YES	
L0000957	0	0.53870E-07	403295.8	3759899.4	71.3	3.50	4.70	1.63	YES	

L0000958	0	0.53870E-07	403290.6	3759908.1	71.3	3.50	4.70	1.63	YES
L0000959	0	0.53870E-07	403285.5	3759916.8	71.3	3.50	4.70	1.63	YES
L0000960	0	0.53870E-07	403280.3	3759925.5	71.2	3.50	4.70	1.63	YES
L0000961	0	0.53870E-07	403275.2	3759934.2	71.2	3.50	4.70	1.63	YES
L0000962	0	0.53870E-07	403270.0	3759942.9	71.2	3.50	4.70	1.63	YES
L0000963	0	0.53870E-07	403264.9	3759951.6	71.2	3.50	4.70	1.63	YES
L0000964	0	0.53870E-07	403259.7	3759960.3	71.1	3.50	4.70	1.63	YES
L0000965	0	0.53870E-07	403254.6	3759969.0	71.0	3.50	4.70	1.63	YES
L0000966	0	0.53870E-07	403249.4	3759977.7	71.0	3.50	4.70	1.63	YES
L0000967	0	0.53870E-07	403244.3	3759986.5	71.0	3.50	4.70	1.63	YES
L0000968	0	0.53870E-07	403239.2	3759995.2	70.9	3.50	4.70	1.63	YES
L0000969	0	0.53870E-07	403234.0	3760003.9	70.9	3.50	4.70	1.63	YES
L0000970	0	0.53870E-07	403228.9	3760012.6	70.8	3.50	4.70	1.63	YES
L0000971	0	0.53870E-07	403223.7	3760021.3	70.8	3.50	4.70	1.63	YES
L0000972	0	0.53870E-07	403218.6	3760030.0	70.8	3.50	4.70	1.63	YES
L0000973	0	0.53870E-07	403213.4	3760038.7	70.7	3.50	4.70	1.63	YES
L0000974	0	0.53870E-07	403208.3	3760047.4	70.6	3.50	4.70	1.63	YES
L0000975	0	0.53870E-07	403203.1	3760056.1	70.5	3.50	4.70	1.63	YES
L0000976	0	0.53870E-07	403198.0	3760064.8	70.5	3.50	4.70	1.63	YES
L0000977	0	0.53870E-07	403192.8	3760073.5	70.5	3.50	4.70	1.63	YES
L0000978	0	0.53870E-07	403187.7	3760082.2	70.5	3.50	4.70	1.63	YES
L0000979	0	0.53870E-07	403182.5	3760090.9	70.5	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000980	0	0.53870E-07	403177.4	3760099.6	70.4	3.50	4.70	1.63	YES	
L0000981	0	0.53870E-07	403172.2	3760108.4	70.4	3.50	4.70	1.63	YES	
L0000982	0	0.53870E-07	403167.1	3760117.1	70.5	3.50	4.70	1.63	YES	
L0000983	0	0.53870E-07	403161.9	3760125.8	70.5	3.50	4.70	1.63	YES	
L0000984	0	0.53870E-07	403156.8	3760134.5	70.4	3.50	4.70	1.63	YES	
L0000985	0	0.53870E-07	403151.6	3760143.2	70.3	3.50	4.70	1.63	YES	
L0000986	0	0.53870E-07	403146.5	3760151.9	70.3	3.50	4.70	1.63	YES	
L0000987	0	0.53870E-07	403141.3	3760160.6	70.3	3.50	4.70	1.63	YES	
L0000988	0	0.53870E-07	403136.2	3760169.3	70.3	3.50	4.70	1.63	YES	
L0000989	0	0.53870E-07	403131.1	3760178.0	70.2	3.50	4.70	1.63	YES	
L0000990	0	0.53870E-07	403125.9	3760186.7	70.1	3.50	4.70	1.63	YES	
L0000991	0	0.53870E-07	403120.8	3760195.4	70.0	3.50	4.70	1.63	YES	
L0000992	0	0.53870E-07	403115.6	3760204.1	70.0	3.50	4.70	1.63	YES	
L0000993	0	0.53870E-07	403110.5	3760212.8	70.1	3.50	4.70	1.63	YES	
L0000994	0	0.53870E-07	403105.3	3760221.5	70.1	3.50	4.70	1.63	YES	

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L0000995         0   0.53870E-07  403100.2 3760230.3    70.2     3.50     4.70     1.63     YES
L0000996         0   0.53870E-07  403095.0 3760239.0    70.2     3.50     4.70     1.63     YES
L0000997         0   0.53870E-07  403089.9 3760247.7    70.3     3.50     4.70     1.63     YES
L0000998         0   0.53870E-07  403084.7 3760256.4    70.4     3.50     4.70     1.63     YES
L0000999         0   0.53870E-07  403079.6 3760265.1    70.4     3.50     4.70     1.63     YES
L0001000         0   0.53870E-07  403074.4 3760273.8    70.5     3.50     4.70     1.63     YES
L0001001         0   0.53870E-07  403069.3 3760282.5    70.7     3.50     4.70     1.63     YES
L0001002         0   0.53870E-07  403064.1 3760291.2    70.9     3.50     4.70     1.63     YES
L0001003         0   0.53870E-07  403059.0 3760299.9    71.0     3.50     4.70     1.63     YES
L0001004         0   0.53870E-07  403053.8 3760308.6    71.2     3.50     4.70     1.63     YES
L0001005         0   0.53870E-07  403048.7 3760317.3    71.3     3.50     4.70     1.63     YES
L0001006         0   0.53870E-07  403043.5 3760326.0    71.4     3.50     4.70     1.63     YES
L0001007         0   0.53870E-07  403038.4 3760334.7    71.2     3.50     4.70     1.63     YES
L0001008         0   0.53870E-07  403033.3 3760343.4    71.1     3.50     4.70     1.63     YES
L0001009         0   0.53870E-07  403028.1 3760352.1    71.0     3.50     4.70     1.63     YES
L0001010         0   0.53870E-07  403023.0 3760360.9    70.9     3.50     4.70     1.63     YES
L0001011         0   0.53870E-07  403017.8 3760369.6    71.0     3.50     4.70     1.63     YES
L0001012         0   0.53870E-07  403012.7 3760378.3    71.1     3.50     4.70     1.63     YES

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2YR 2025-2026                        ***        18:34:15
                                                                                                        PAGE  10
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                          SOURCE IDs
-----------                                          ----------

 ALL        STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , L0000740    , L0000741    , L0000742    ,
            L0000743    , L0000744    , L0000745    , L0000746    , L0000747    , L0000748    , L0000749    , L0000750    ,
            L0000751    , L0000752    , L0000753    , L0000754    , L0000755    , L0000756    , L0000757    , L0000758    ,
            L0000759    , L0000760    , L0000761    , L0000762    , L0000763    , L0000764    , L0000765    , L0000766    ,
            L0000767    , L0000768    , L0000769    , L0000770    , L0000771    , L0000772    , L0000773    , L0000774    ,
            L0000775    , L0000776    , L0000777    , L0000778    , L0000779    , L0000780    , L0000781    , L0000782    ,
            L0000783    , L0000784    , L0000785    , L0000786    , L0000787    , L0000788    , L0000789    , L0000790    ,
            L0000791    , L0000792    , L0000793    , L0000794    , L0000795    , L0000796    , L0000797    , L0000798    ,
            L0000799    , L0000800    , L0000801    , L0000802    , L0000803    , L0000804    , L0000805    , L0000806    ,
            L0000807    , L0000808    , L0000809    , L0000810    , L0000811    , L0000812    , L0000813    , L0000814    ,
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L0000815 , L0000816 , L0000817 , L0000818 , L0000819 , L0000820 , L0000821 , L0000822 ,

L0000823 , L0000824 , L0000825 , L0000826 , L0000827 , L0000828 , L0000829 , L0000830 ,

L0000831 , L0000832 , L0000833 , L0000834 , L0000835 , L0000836 , L0000837 , L0000838 ,

L0000839 , L0000840 , L0000841 , L0000842 , L0000843 , L0000844 , L0000845 , L0000846 ,

L0000847 , L0000848 , L0000849 , L0000850 , L0000851 , L0000852 , L0000853 , L0000854 ,

L0000855 , L0000856 , L0000857 , L0000858 , L0000859 , L0000860 , L0000861 , L0000862 ,

L0000863 , L0000864 , L0000865 , L0000866 , L0000867 , L0000868 , L0000869 , L0000870 ,

L0000871 , L0000872 , L0000873 , L0000874 , L0000875 , L0000876 , L0000877 , L0000878 ,

L0000879 , L0000880 , L0000881 , L0000882 , L0000883 , L0000884 , L0000885 , L0000886 ,

L0000887 , L0000888 , L0000889 , L0000890 , L0000891 , L0000892 , L0000893 , L0000894 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

L0000895 , L0000896 , L0000897 , L0000898 , L0000899 , L0000900 , L0000901 , L0000902 ,

L0000903 , L0000904 , L0000905 , L0000906 , L0000907 , L0000908 , L0000909 , L0000910 ,

L0000911 , L0000912 , L0000913 , L0000914 , L0000915 , L0000916 , L0000917 , L0000918 ,

L0000919 , L0000920 , L0000921 , L0000922 , L0000923 , L0000924 , L0000925 , L0000926 ,

L0000927 , L0000928 , L0000929 , L0000930 , L0000931 , L0000932 , L0000933 , L0000934 ,

L0000935 , L0000936 , L0000937 , L0000938 , L0000939 , L0000940 , L0000941 , L0000942 ,

L0000943 , L0000944 , L0000945 , L0000946 , L0000947 , L0000948 , L0000949 , L0000950 ,

L0000951 , L0000952 , L0000953 , L0000954 , L0000955 , L0000956 , L0000957 , L0000958 ,

L0000959 , L0000960 , L0000961 , L0000962 , L0000963 , L0000964 , L0000965 , L0000966 ,

L0000967 , L0000968 , L0000969 , L0000970 , L0000971 , L0000972 , L0000973 , L0000974 ,

L0000975 , L0000976 , L0000977 , L0000978 , L0000979 , L0000980 , L0000981 , L0000982 ,

L0000983 , L0000984 , L0000985 , L0000986 , L0000987 , L0000988 , L0000989 , L0000990 ,

L0000991 , L0000992 , L0000993 , L0000994 , L0000995 , L0000996 , L0000997 , L0000998 ,

L0000999 , L0001000 , L0001001 , L0001002 , L0001003 , L0001004 , L0001005 , L0001006 ,

L0001007 , L0001008 , L0001009 , L0001010 , L0001011 , L0001012 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

9818605. STCK1 , STCK2 , STCK3 , STCK4 , STCK5 , L0000740 , L0000741 , L0000742 ,

L0000743 , L0000744 , L0000745 , L0000746 , L0000747 , L0000748 , L0000749 , L0000750 ,

L0000751 , L0000752 , L0000753 , L0000754 , L0000755 , L0000756 , L0000757 , L0000758 ,

L0000759 , L0000760 , L0000761 , L0000762 , L0000763 , L0000764 , L0000765 , L0000766 ,

L0000767 , L0000768 , L0000769 , L0000770 , L0000771 , L0000772 , L0000773 , L0000774 ,

L0000775 , L0000776 , L0000777 , L0000778 , L0000779 , L0000780 , L0000781 , L0000782 ,

L0000783 , L0000784 , L0000785 , L0000786 , L0000787 , L0000788 , L0000789 , L0000790 ,

L0000791 , L0000792 , L0000793 , L0000794 , L0000795 , L0000796 , L0000797 , L0000798 ,

L0000799 , L0000800 , L0000801 , L0000802 , L0000803 , L0000804 , L0000805 , L0000806 ,

L0000807 , L0000808 , L0000809 , L0000810 , L0000811 , L0000812 , L0000813 , L0000814 ,

L0000815 , L0000816 , L0000817 , L0000818 , L0000819 , L0000820 , L0000821 , L0000822 ,

L0000823 , L0000824 , L0000825 , L0000826 , L0000827 , L0000828 , L0000829 , L0000830 ,

L0000831 , L0000832 , L0000833 , L0000834 , L0000835 , L0000836 , L0000837 , L0000838 ,

L0000839 , L0000840 , L0000841 , L0000842 , L0000843 , L0000844 , L0000845 , L0000846 ,

L0000847 , L0000848 , L0000849 , L0000850 , L0000851 , L0000852 , L0000853 , L0000854 ,

L0000855 , L0000856 , L0000857 , L0000858 , L0000859 , L0000860 , L0000861 , L0000862 ,

L0000863 , L0000864 , L0000865 , L0000866 , L0000867 , L0000868 , L0000869 , L0000870 ,

L0000871 , L0000872 , L0000873 , L0000874 , L0000875 , L0000876 , L0000877 , L0000878 ,

L0000879 , L0000880 , L0000881 , L0000882 , L0000883 , L0000884 , L0000885 , L0000886 ,

L0000887 , L0000888 , L0000889 , L0000890 , L0000891 , L0000892 , L0000893 , L0000894 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0000895 , L0000896 , L0000897 , L0000898 , L0000899 , L0000900 , L0000901 , L0000902 ,

L0000903 , L0000904 , L0000905 , L0000906 , L0000907 , L0000908 , L0000909 , L0000910 ,

L0000911 , L0000912 , L0000913 , L0000914 , L0000915 , L0000916 , L0000917 , L0000918 ,

L0000919 , L0000920 , L0000921 , L0000922 , L0000923 , L0000924 , L0000925 , L0000926 ,

L0000927 , L0000928 , L0000929 , L0000930 , L0000931 , L0000932 , L0000933 , L0000934 ,

L0000935 , L0000936 , L0000937 , L0000938 , L0000939 , L0000940 , L0000941 , L0000942 ,

L0000943 , L0000944 , L0000945 , L0000946 , L0000947 , L0000948 , L0000949 , L0000950 ,

L0000951 , L0000952 , L0000953 , L0000954 , L0000955 , L0000956 , L0000957 , L0000958 ,

L0000959 , L0000960 , L0000961 , L0000962 , L0000963 , L0000964 , L0000965 , L0000966 ,

L0000967 , L0000968 , L0000969 , L0000970 , L0000971 , L0000972 , L0000973 , L0000974 ,

L0000975 , L0000976 , L0000977 , L0000978 , L0000979 , L0000980 , L0000981 , L0000982 ,

L0000983 , L0000984 , L0000985 , L0000986 , L0000987 , L0000988 , L0000989 , L0000990 ,

L0000991 , L0000992 , L0000993 , L0000994 , L0000995 , L0000996 , L0000997 , L0000998 ,

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-18.6,	-35.5,	2	10.7,	215.2,	250.1,	-25.0,	-15.0,
3	10.7,	198.7,	259.2,	-30.8,	5.5,	4	10.7,	178.8,	260.5,	-35.5,	24.6,
5	10.7,	153.4,	253.9,	-39.2,	42.8,	6	10.7,	124.1,	243.3,	-42.0,	59.5,
7	10.7,	147.9,	246.9,	-50.2,	77.4,	8	10.7,	182.2,	243.0,	-56.8,	87.0,
9	10.7,	211.0,	231.7,	-61.8,	94.0,	10	10.7,	233.4,	226.0,	-77.5,	98.1,
11	10.7,	250.1,	215.2,	-92.6,	100.0,	12	10.7,	259.2,	198.7,	-104.8,	98.9,
13	10.7,	260.5,	178.8,	-113.9,	94.7,	14	10.7,	253.9,	153.4,	-119.5,	87.7,
15	10.7,	243.3,	124.1,	-121.5,	79.7,	16	10.7,	246.9,	147.9,	-151.3,	73.3,
17	10.7,	243.0,	182.2,	-178.1,	64.6,	18	10.7,	231.7,	211.0,	-199.5,	54.1,
19	10.7,	226.0,	233.4,	-214.8,	35.5,	20	10.7,	215.2,	250.1,	-225.1,	15.0,
21	10.7,	198.7,	259.2,	-228.5,	-5.5,	22	10.7,	178.8,	260.5,	-225.0,	-24.6,
23	10.7,	153.4,	253.9,	-214.6,	-42.8,	24	10.7,	124.1,	243.3,	-201.3,	-59.5,
25	10.7,	147.9,	246.9,	-196.7,	-77.4,	26	10.7,	182.2,	243.0,	-186.1,	-87.0,
27	10.7,	211.0,	231.7,	-169.9,	-94.0,	28	10.7,	233.4,	226.0,	-148.5,	-98.1,
29	10.7,	250.1,	215.2,	-122.6,	-100.0,	30	10.7,	259.2,	198.7,	-93.8,	-98.9,
31	10.7,	260.5,	178.8,	-64.8,	-94.7,	32	10.7,	253.9,	153.4,	-33.9,	-87.7,
33	10.7,	243.3,	124.1,	-2.6,	-79.7,	34	10.7,	246.9,	147.9,	3.4,	-73.3,
35	10.7,	243.0,	182.2,	-4.1,	-64.6,	36	10.7,	231.7,	211.0,	-11.5,	-54.1,

SOURCE ID: STCK2

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-61.8,	20.2,	2	10.7,	215.2,	250.1,	-77.3,	32.4,
3	10.7,	198.7,	259.2,	-90.5,	43.1,	4	10.7,	178.8,	260.5,	-100.9,	51.2,
5	10.7,	153.4,	253.9,	-108.2,	57.7,	6	10.7,	124.1,	243.3,	-112.5,	62.1,
7	10.7,	147.9,	246.9,	-120.1,	67.7,	8	10.7,	182.2,	243.0,	-124.0,	65.4,
9	10.7,	211.0,	231.7,	-124.2,	61.0,	10	10.7,	233.4,	226.0,	-133.2,	54.8,
11	10.7,	250.1,	215.2,	-140.0,	47.7,	12	10.7,	259.2,	198.7,	-142.4,	39.1,
13	10.7,	260.5,	178.8,	-140.6,	29.4,	14	10.7,	253.9,	153.4,	-134.4,	18.7,
15	10.7,	243.3,	124.1,	-124.2,	9.1,	16	10.7,	246.9,	147.9,	-141.7,	3.3,
17	10.7,	243.0,	182.2,	-156.5,	-2.5,	18	10.7,	231.7,	211.0,	-166.5,	-8.3,
19	10.7,	226.0,	233.4,	-171.5,	-20.2,	20	10.7,	215.2,	250.1,	-172.8,	-32.4,
21	10.7,	198.7,	259.2,	-168.7,	-43.1,	22	10.7,	178.8,	260.5,	-159.6,	-51.2,
23	10.7,	153.4,	253.9,	-145.6,	-57.7,	24	10.7,	124.1,	243.3,	-130.8,	-62.1,
25	10.7,	147.9,	246.9,	-126.8,	-67.7,	26	10.7,	182.2,	243.0,	-118.9,	-65.4,
27	10.7,	211.0,	231.7,	-107.5,	-61.0,	28	10.7,	233.4,	226.0,	-92.8,	-54.8,
29	10.7,	250.1,	215.2,	-75.2,	-47.7,	30	10.7,	259.2,	198.7,	-56.3,	-39.1,

31	10.7,	260.5,	178.8,	-38.2,	-29.4,	32	10.7,	253.9,	153.4,	-19.0,	-18.7,
33	10.7,	243.3,	124.1,	0.1,	-9.1,	34	10.7,	246.9,	147.9,	-6.2,	-3.3,
35	10.7,	243.0,	182.2,	-25.7,	2.5,	36	10.7,	231.7,	211.0,	-44.5,	8.3,

SOURCE ID: STCK3

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-31.6,	-16.6,	2	10.7,	215.2,	250.1,	-41.2,	1.4,
3	10.7,	198.7,	259.2,	-49.5,	18.8,	4	10.7,	178.8,	260.5,	-56.3,	34.4,
5	10.7,	153.4,	253.9,	-61.4,	49.0,	6	10.7,	124.1,	243.3,	-64.9,	61.6,
7	10.7,	147.9,	246.9,	-73.1,	75.5,	8	10.7,	182.2,	243.0,	-79.1,	81.2,
9	10.7,	211.0,	231.7,	-82.7,	84.4,	10	10.7,	233.4,	226.0,	-96.4,	85.1,
11	10.7,	250.1,	215.2,	-109.0,	83.9,	12	10.7,	259.2,	198.7,	-118.2,	80.1,
13	10.7,	260.5,	178.8,	-123.8,	73.9,	14	10.7,	253.9,	153.4,	-125.7,	65.5,
15	10.7,	243.3,	124.1,	-123.7,	56.8,	16	10.7,	246.9,	147.9,	-149.5,	50.3,
17	10.7,	243.0,	182.2,	-172.3,	42.4,	18	10.7,	231.7,	211.0,	-189.9,	33.1,
19	10.7,	226.0,	233.4,	-201.8,	16.6,	20	10.7,	215.2,	250.1,	-208.9,	-1.4,
21	10.7,	198.7,	259.2,	-209.8,	-18.8,	22	10.7,	178.8,	260.5,	-204.2,	-34.4,
23	10.7,	153.4,	253.9,	-192.4,	-49.0,	24	10.7,	124.1,	243.3,	-178.4,	-61.6,
25	10.7,	147.9,	246.9,	-173.8,	-75.5,	26	10.7,	182.2,	243.0,	-163.9,	-81.2,
27	10.7,	211.0,	231.7,	-149.0,	-84.4,	28	10.7,	233.4,	226.0,	-129.6,	-85.1,
29	10.7,	250.1,	215.2,	-106.2,	-83.9,	30	10.7,	259.2,	198.7,	-80.5,	-80.1,
31	10.7,	260.5,	178.8,	-55.0,	-73.9,	32	10.7,	253.9,	153.4,	-27.8,	-65.5,
33	10.7,	243.3,	124.1,	-0.4,	-56.8,	34	10.7,	246.9,	147.9,	1.6,	-50.3,
35	10.7,	243.0,	182.2,	-9.9,	-42.4,	36	10.7,	231.7,	211.0,	-21.1,	-33.1,

SOURCE ID: STCK4

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-84.8,	46.1,	2	10.7,	215.2,	250.1,	-104.4,	53.8,
3	10.7,	198.7,	259.2,	-120.9,	59.5,	4	10.7,	178.8,	260.5,	-133.7,	62.1,
5	10.7,	153.4,	253.9,	-142.4,	62.8,	6	10.7,	124.1,	243.3,	-147.0,	61.2,
7	10.7,	147.9,	246.9,	-153.9,	60.8,	8	10.7,	182.2,	243.0,	-156.1,	52.7,
9	10.7,	211.0,	231.7,	-153.6,	42.9,	10	10.7,	233.4,	226.0,	-159.1,	31.9,
11	10.7,	250.1,	215.2,	-161.4,	20.6,	12	10.7,	259.2,	198.7,	-158.9,	8.7,
13	10.7,	260.5,	178.8,	-151.5,	-3.4,	14	10.7,	253.9,	153.4,	-139.5,	-15.5,
15	10.7,	243.3,	124.1,	-123.2,	-25.4,	16	10.7,	246.9,	147.9,	-134.7,	-30.5,
17	10.7,	243.0,	182.2,	-143.8,	-34.6,	18	10.7,	231.7,	211.0,	-148.4,	-37.8,
19	10.7,	226.0,	233.4,	-148.6,	-46.1,	20	10.7,	215.2,	250.1,	-145.7,	-53.8,
21	10.7,	198.7,	259.2,	-138.4,	-59.5,	22	10.7,	178.8,	260.5,	-126.8,	-62.1,
23	10.7,	153.4,	253.9,	-111.5,	-62.8,	24	10.7,	124.1,	243.3,	-96.2,	-61.2,
25	10.7,	147.9,	246.9,	-93.0,	-60.8,	26	10.7,	182.2,	243.0,	-86.8,	-52.7,
27	10.7,	211.0,	231.7,	-78.1,	-42.9,	28	10.7,	233.4,	226.0,	-66.9,	-31.9,
29	10.7,	250.1,	215.2,	-53.8,	-20.6,	30	10.7,	259.2,	198.7,	-39.8,	-8.7,
31	10.7,	260.5,	178.8,	-27.3,	3.4,	32	10.7,	253.9,	153.4,	-14.0,	15.5,
33	10.7,	243.3,	124.1,	-0.9,	25.4,	34	10.7,	246.9,	147.9,	-13.2,	30.5,
35	10.7,	243.0,	182.2,	-38.4,	34.6,	36	10.7,	231.7,	211.0,	-62.6,	37.8,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK5

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-97.0,	85.0,	2	10.7,	215.2,	250.1,	-123.2,	90.0,
3	10.7,	198.7,	259.2,	-145.7,	91.8,	4	10.7,	178.8,	260.5,	-163.7,	89.6,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	10.7,	147.9,	246.9,	-193.7,	69.6,	8	10.7,	182.2,	243.0,	-196.9,	54.4,
9	10.7,	211.0,	231.7,	-194.0,	37.6,	10	10.7,	233.4,	226.0,	-198.0,	19.7,
11	10.7,	250.1,	215.2,	-197.6,	1.8,	12	10.7,	259.2,	198.7,	-191.2,	-16.1,
13	10.7,	260.5,	178.8,	-179.0,	-33.5,	14	10.7,	253.9,	153.4,	-161.4,	-49.9,
15	10.7,	243.3,	124.1,	-138.8,	-63.1,	16	10.7,	246.9,	147.9,	-143.6,	-70.3,
17	10.7,	243.0,	182.2,	-145.6,	-75.4,	18	10.7,	231.7,	211.0,	-143.1,	-78.2,
19	10.7,	226.0,	233.4,	-136.3,	-85.0,	20	10.7,	215.2,	250.1,	-126.9,	-90.0,
21	10.7,	198.7,	259.2,	-113.5,	-91.8,	22	10.7,	178.8,	260.5,	-96.8,	-89.6,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	10.7,	147.9,	246.9,	-53.1,	-69.6,	26	10.7,	182.2,	243.0,	-46.1,	-54.4,
27	10.7,	211.0,	231.7,	-37.6,	-37.6,	28	10.7,	233.4,	226.0,	-28.1,	-19.7,
29	10.7,	250.1,	215.2,	-17.6,	-1.8,	30	10.7,	259.2,	198.7,	-7.5,	16.1,
31	10.7,	260.5,	178.8,	0.2,	33.5,	32	10.7,	253.9,	153.4,	8.0,	49.9,
33	10.7,	243.3,	124.1,	14.7,	63.1,	34	10.7,	246.9,	147.9,	-4.3,	70.3,
35	10.7,	243.0,	182.2,	-36.7,	75.4,	36	10.7,	231.7,	211.0,	-67.9,	78.2,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

402680.3, 402746.2, 402812.2, 402878.1, 402944.0, 403010.0, 403075.9, 403141.8, 403207.8, 403273.7,
403339.6, 403405.5, 403471.5, 403537.4, 403603.3, 403669.3, 403735.2, 403801.1, 403867.1, 403933.0,
403998.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3759000.9, 3759070.5, 3759140.2, 3759209.8, 3759279.4, 3759349.0, 3759418.7, 3759488.3, 3759557.9, 3759627.6,
3759697.2, 3759766.8, 3759836.5, 3759906.1, 3759975.7, 3760045.4, 3760115.0, 3760184.6, 3760254.2, 3760323.9,
3760393.5,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	65.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	56.20	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	59.50
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	55.00	55.10	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	78.20	79.70	82.10	84.30	85.20	87.50	88.10	90.20	92.90
3760323.87	76.50	78.70	80.70	82.30	83.80	84.90	86.10	88.80	90.70
3760254.24	75.30	77.80	78.80	80.80	82.10	83.20	84.90	87.20	89.70

3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	84.00	86.10	88.20
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	87.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	66.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	94.90	97.60	99.60
3760323.87	92.60	95.30	97.80
3760254.24	91.60	94.30	96.20
3760184.61	91.00	92.90	95.10
3760114.98	90.20	92.20	94.00
3760045.35	89.50	91.10	93.10
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40
3759279.42	69.70	70.80	72.20
3759209.79	68.20	69.70	71.50
3759140.16	67.40	68.50	70.00

3759070.53	66.00	67.90	69.10
3759000.90	65.80	66.90	68.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	67.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	59.00	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	62.60
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	57.50	56.80	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13

3760393.50	78.20	79.70	82.10	324.50	361.90	361.90	361.90	361.90	361.90
3760323.87	76.50	78.70	80.70	82.30	324.50	361.90	361.90	361.90	361.90
3760254.24	75.30	77.80	78.80	80.80	82.10	324.70	324.70	361.90	361.90
3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	324.50	324.70	336.70
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	323.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	70.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	361.90	361.90	361.90
3760323.87	361.90	361.90	361.90
3760254.24	361.90	361.90	361.90
3760184.61	361.10	361.90	361.90
3760114.98	324.50	324.70	336.70
3760045.35	89.50	91.10	323.90
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40

```
 3759279.42 |         69.70        70.80        72.20
 3759209.79 |         68.20        69.70        71.50
 3759140.16 |         67.40        68.50        70.00
 3759070.53 |         66.00        67.90        69.10
 3759000.90 |         65.80        66.90        68.20
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
   ( 403076.6, 3759566.9,      63.0,      63.0,       0.0);        ( 403074.6, 3759594.7,      63.1,      63.1,       0.0);
   ( 403074.3, 3759652.4,      63.8,      63.8,       0.0);        ( 403036.2, 3759545.2,      61.6,      61.6,       0.0);
   ( 403491.1, 3759689.7,      73.7,      73.7,       0.0);        ( 403558.2, 3759512.8,      71.0,      71.0,       0.0);
   ( 403587.6, 3759479.4,      70.9,      70.9,       0.0);        ( 403471.1, 3759691.3,      73.3,      73.3,       0.0);
   ( 403097.0, 3760166.2,      69.1,      69.1,       0.0);
```


* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000745	403339.6	3759627.6	-7.09
L0000746	403339.6	3759627.6	-0.90
L0000762	403207.8	3759557.9	-2.06
L0000763	403207.8	3759557.9	-1.64
L0000770	403405.5	3759627.6	-4.59
L0000771	403405.5	3759627.6	-3.45
L0000801	403537.4	3759418.7	0.82
L0000829	403669.3	3759209.8	-3.56
L0000830	403669.3	3759209.8	-5.02
L0000881	403339.6	3759070.5	-4.58
L0000882	403339.6	3759070.5	-3.94
L0000909	403537.4	3759488.3	-1.57
L0000910	403537.4	3759488.3	-7.74
L0000925	403471.5	3759627.6	-0.10
L0000934	403405.5	3759697.2	-0.35
L0000949	403339.6	3759836.5	-2.86
L0000950	403339.6	3759836.5	-2.05

L0000973	403207.8	3760045.4	-1.37
L0000974	403207.8	3760045.4	-7.99
L0000998	403075.9	3760254.2	-1.02

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC Met Version: 16216
Profile file: E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 3166 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2010 Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
10	01	01	1	01	-38.6	0.384	-9.000	-9.000	-999.	572.	162.4	0.34	0.73	1.00	3.10	321.	9.1	283.8	5.5
10	01	01	1	02	-33.5	0.333	-9.000	-9.000	-999.	462.	121.8	0.34	0.73	1.00	2.70	217.	9.1	282.5	5.5
10	01	01	1	03	-21.9	0.218	-9.000	-9.000	-999.	251.	52.2	0.34	0.73	1.00	1.80	290.	9.1	282.5	5.5

```
10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  255.    9.1  282.0    5.5
10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73   1.00    1.80  234.    9.1  282.0    5.5
10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  258.    9.1  282.0    5.5
10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  213.    9.1  281.4    5.5
10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73   0.54    2.70  215.    9.1  282.0    5.5
10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73   0.32    1.80  199.    9.1  284.2    5.5
10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73   0.24    2.70  117.    9.1  288.1    5.5
10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73   0.21    2.70  243.    9.1  290.4    5.5
10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73   0.20    1.80  130.    9.1  293.1    5.5
10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73   0.20    1.80  282.    9.1  294.9    5.5
10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73   0.21    1.30  290.    9.1  295.9    5.5
10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73   0.25    1.30  192.    9.1  294.9    5.5
10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73   0.33    1.30  218.    9.1  293.8    5.5
10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73   0.60    1.30  255.    9.1  292.0    5.5
10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73   1.00    0.90  129.    9.1  289.2    5.5
10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73   1.00    1.30  264.    9.1  287.5    5.5
10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73   1.00    1.30   25.    9.1  287.0    5.5
10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  343.    9.1  285.9    5.5
10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  332.    9.1  284.9    5.5
10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  178.    9.1  284.2    5.5
10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73   1.00    1.30   28.    9.1  283.1    5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2YR 2025-2026                                ***        18:34:15
                                                                                                               PAGE  27
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
                 L0000740    , L0000741    , L0000742    , L0000743    , L0000744    , L0000745    , L0000746    , L0000747    ,
                 L0000748    , L0000749    , L0000750    , L0000751    , L0000752    , L0000753    , L0000754    , L0000755    ,
                 L0000756    , L0000757    , L0000758    , L0000759    , L0000760    , L0000761    , L0000762    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                      **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     402680.32    402746.25    402812.18    402878.11    402944.04    403009.97    403075.90    403141.83    403207.76
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3760393.50 |       0.00007      0.00008      0.00010      0.00011      0.00015      0.00034      0.00022      0.00018      0.00017
 3760323.87 |       0.00008      0.00009      0.00011      0.00014      0.00018      0.00037      0.00045      0.00026      0.00022
```

3760254.24	0.00009	0.00011	0.00013	0.00016	0.00020	0.00029	0.00068	0.00039	0.00030
3760184.61	0.00010	0.00012	0.00015	0.00018	0.00023	0.00029	0.00043	0.00082	0.00041
3760114.98	0.00011	0.00013	0.00017	0.00021	0.00026	0.00032	0.00041	0.00069	0.00062
3760045.35	0.00012	0.00015	0.00019	0.00023	0.00029	0.00036	0.00045	0.00057	0.00091
3759975.72	0.00013	0.00017	0.00021	0.00026	0.00033	0.00041	0.00051	0.00063	0.00083
3759906.09	0.00015	0.00018	0.00023	0.00028	0.00036	0.00046	0.00058	0.00073	0.00091
3759836.46	0.00016	0.00020	0.00025	0.00031	0.00040	0.00051	0.00067	0.00089	0.00119
3759766.83	0.00016	0.00021	0.00026	0.00033	0.00043	0.00055	0.00075	0.00126	0.00154
3759697.20	0.00017	0.00022	0.00028	0.00035	0.00045	0.00059	0.00087	0.00123	0.00169
3759627.57	0.00017	0.00022	0.00028	0.00036	0.00047	0.00063	0.00109	0.00117	0.00208
3759557.94	0.00017	0.00022	0.00028	0.00036	0.00047	0.00067	0.00109	0.00183	0.00298
3759488.31	0.00016	0.00021	0.00027	0.00035	0.00048	0.00069	0.00111	0.00180	0.00189
3759418.68	0.00016	0.00020	0.00026	0.00035	0.00048	0.00068	0.00094	0.00104	0.00088
3759349.05	0.00015	0.00019	0.00025	0.00033	0.00045	0.00059	0.00066	0.00064	0.00055
3759279.42	0.00014	0.00018	0.00023	0.00030	0.00038	0.00046	0.00046	0.00042	0.00038
3759209.79	0.00013	0.00016	0.00020	0.00025	0.00030	0.00033	0.00033	0.00031	0.00030
3759140.16	0.00011	0.00014	0.00017	0.00020	0.00023	0.00024	0.00025	0.00026	0.00028
3759070.53	0.00010	0.00012	0.00014	0.00016	0.00018	0.00019	0.00021	0.00032	0.00048
3759000.90	0.00009	0.00010	0.00012	0.00013	0.00014	0.00015	0.00017	0.00028	0.00029

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000740 , L0000741 , L0000742 , L0000743 , L0000744 , L0000745 , L0000746 , L0000747 ,
L0000748 , L0000749 , L0000750 , L0000751 , L0000752 , L0000753 , L0000754 , L0000755 ,
L0000756 , L0000757 , L0000758 , L0000759 , L0000760 , L0000761 , L0000762 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	0.00017	0.00016	0.00016	0.00015	0.00014	0.00013	0.00012	0.00011	0.00010
3760323.87	0.00021	0.00020	0.00019	0.00018	0.00017	0.00015	0.00014	0.00012	0.00011
3760254.24	0.00027	0.00026	0.00024	0.00022	0.00020	0.00018	0.00016	0.00014	0.00013
3760184.61	0.00036	0.00033	0.00031	0.00028	0.00025	0.00022	0.00019	0.00016	0.00014
3760114.98	0.00047	0.00043	0.00039	0.00035	0.00030	0.00026	0.00022	0.00019	0.00016
3760045.35	0.00065	0.00056	0.00050	0.00044	0.00037	0.00031	0.00026	0.00022	0.00018
3759975.72	0.00106	0.00076	0.00065	0.00055	0.00046	0.00038	0.00030	0.00024	0.00019
3759906.09	0.00133	0.00107	0.00085	0.00069	0.00056	0.00043	0.00033	0.00025	0.00019
3759836.46	0.00141	0.00160	0.00116	0.00087	0.00064	0.00046	0.00034	0.00025	0.00019
3759766.83	0.00185	0.00209	0.00172	0.00102	0.00067	0.00046	0.00033	0.00024	0.00018
3759697.20	0.00223	0.00187	0.00231	0.00112	0.00066	0.00045	0.00032	0.00023	0.00018
3759627.57	0.00270	0.00331	0.00238	0.00141	0.00068	0.00044	0.00031	0.00023	0.00017

3759557.94	0.00258	0.00178	0.00152	0.00156	0.00083	0.00046	0.00031	0.00023	0.00017
3759488.31	0.00146	0.00111	0.00099	0.00181	0.00112	0.00050	0.00032	0.00023	0.00018
3759418.68	0.00076	0.00070	0.00067	0.00074	0.00104	0.00053	0.00033	0.00024	0.00018
3759349.05	0.00050	0.00048	0.00047	0.00048	0.00054	0.00085	0.00036	0.00025	0.00019
3759279.42	0.00037	0.00037	0.00036	0.00037	0.00039	0.00059	0.00047	0.00027	0.00019
3759209.79	0.00030	0.00031	0.00032	0.00032	0.00034	0.00039	0.00068	0.00030	0.00018
3759140.16	0.00030	0.00033	0.00036	0.00040	0.00048	0.00063	0.00088	0.00031	0.00017
3759070.53	0.00073	0.00063	0.00069	0.00047	0.00037	0.00030	0.00025	0.00018	0.00014
3759000.90	0.00027	0.00025	0.00023	0.00021	0.00019	0.00018	0.00016	0.00013	0.00011

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000740 , L0000741 , L0000742 , L0000743 , L0000744 , L0000745 , L0000746 , L0000747 ,
L0000748 , L0000749 , L0000750 , L0000751 , L0000752 , L0000753 , L0000754 , L0000755 ,
L0000756 , L0000757 , L0000758 , L0000759 , L0000760 , L0000761 , L0000762 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	0.00009	0.00008	0.00007
3760323.87	0.00010	0.00009	0.00008
3760254.24	0.00011	0.00010	0.00009
3760184.61	0.00012	0.00011	0.00009
3760114.98	0.00014	0.00011	0.00010
3760045.35	0.00015	0.00012	0.00010
3759975.72	0.00015	0.00012	0.00010
3759906.09	0.00015	0.00012	0.00010
3759836.46	0.00015	0.00012	0.00010
3759766.83	0.00014	0.00011	0.00009
3759697.20	0.00014	0.00011	0.00009
3759627.57	0.00014	0.00011	0.00009
3759557.94	0.00014	0.00011	0.00009
3759488.31	0.00014	0.00011	0.00009
3759418.68	0.00014	0.00011	0.00009
3759349.05	0.00014	0.00011	0.00009
3759279.42	0.00014	0.00011	0.00009
3759209.79	0.00014	0.00011	0.00008
3759140.16	0.00012	0.00010	0.00008
3759070.53	0.00011	0.00009	0.00008
3759000.90	0.00010	0.00008	0.00007

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0000740 , L0000741 , L0000742 , L0000743 , L0000744 , L0000745 , L0000746 , L0000747 ,
L0000748 , L0000749 , L0000750 , L0000751 , L0000752 , L0000753 , L0000754 , L0000755 ,
L0000756 , L0000757 , L0000758 , L0000759 , L0000760 , L0000761 , L0000762 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
403076.63	3759566.89	0.00110	403074.61	3759594.66	0.00108
403074.33	3759652.43	0.00103	403036.23	3759545.23	0.00079
403491.13	3759689.69	0.00094	403558.25	3759512.77	0.00080
403587.63	3759479.41	0.00059	403471.13	3759691.31	0.00113
403096.96	3760166.19	0.00050			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00331 AT	(403339.62, 3759627.57, 68.10, 68.10, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.00298 AT	(403207.76, 3759557.94, 66.70, 66.70, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.00270 AT	(403273.69, 3759627.57, 67.70, 67.70, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.00258 AT	(403273.69, 3759557.94, 66.40, 66.40, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.00238 AT	(403405.55, 3759627.57, 70.40, 70.40, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00231 AT	(403405.55, 3759697.20, 72.10, 72.10, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00223 AT	(403273.69, 3759697.20, 68.00, 68.00, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00209 AT	(403339.62, 3759766.83, 71.30, 71.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00208 AT	(403207.76, 3759627.57, 67.30, 67.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00189 AT	(403207.76, 3759488.31, 64.10, 64.10, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   9 Warning Message(s)
A Total of   1277 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   152 Calm Hours Identified

A Total of   1125 Missing Hours Identified (2.57 Percent)

   ******** FATAL ERROR MESSAGES ********
             *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   408   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   409   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   410   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   411   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   412   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
ME W186   896   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   896   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 15010101
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

   ****
   *** AERMOD Finishes Successfully ***
   ****

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 6/26/2023
** File: C:\Lakes\AERMOD View\19391 Whittier Blvd BP 1st 14 YR\19391 Whittier Blvd BP 1st 14 YR.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE 19391 Whittier Blvd BP
   TITLETWO DPM Concentrations 14YR 2027-2040
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "19391 Whittier Blvd BP 1st 14 YR.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      403193.640  3759565.730       66.820
** DESCRSRC Truck idling Location
   LOCATION STCK2        POINT      403256.045  3759598.705       67.440
** DESCRSRC Truck idling Location
   LOCATION STCK3        POINT      403214.561  3759575.303       66.930
** DESCRSRC Truck idling Location
   LOCATION STCK4        POINT      403285.474  3759616.787       67.600
** DESCRSRC Truck idling Location
   LOCATION STCK5        POINT      403325.895  3759622.106       67.810
** DESCRSRC Truck idling Location
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-site truck travel
```

```
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.16E-06
** Elevated
** Building Height = 10.67
** SZINIT = 4.96
** Nodes = 6
** 403377.081, 3759656.927, 68.97, 3.50, 4.00
** 403368.321, 3759649.002, 68.27, 3.50, 4.00
** 403361.646, 3759641.493, 68.07, 3.50, 4.00
** 403353.721, 3759633.985, 68.07, 3.50, 4.00
** 403323.270, 3759617.299, 67.71, 3.50, 4.00
** 403189.785, 3759541.797, 65.87, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0001013     VOLUME   403373.895 3759654.046 68.80
   LOCATION L0001014     VOLUME   403367.608 3759648.200 68.24
   LOCATION L0001015     VOLUME   403361.900 3759641.779 68.19
   LOCATION L0001016     VOLUME   403355.687 3759635.848 68.25
   LOCATION L0001017     VOLUME   403348.563 3759631.158 68.15
   LOCATION L0001018     VOLUME   403341.029 3759627.030 68.08
   LOCATION L0001019     VOLUME   403333.495 3759622.902 67.96
   LOCATION L0001020     VOLUME   403325.961 3759618.774 67.80
   LOCATION L0001021     VOLUME   403318.463 3759614.581 67.70
   LOCATION L0001022     VOLUME   403310.986 3759610.351 67.69
   LOCATION L0001023     VOLUME   403303.508 3759606.122 67.65
   LOCATION L0001024     VOLUME   403296.031 3759601.892 67.57
   LOCATION L0001025     VOLUME   403288.553 3759597.663 67.52
   LOCATION L0001026     VOLUME   403281.076 3759593.433 67.47
   LOCATION L0001027     VOLUME   403273.598 3759589.204 67.42
   LOCATION L0001028     VOLUME   403266.120 3759584.974 67.36
   LOCATION L0001029     VOLUME   403258.643 3759580.745 67.21
   LOCATION L0001030     VOLUME   403251.165 3759576.515 67.10
   LOCATION L0001031     VOLUME   403243.688 3759572.286 67.02
   LOCATION L0001032     VOLUME   403236.210 3759568.056 66.91
   LOCATION L0001033     VOLUME   403228.733 3759563.827 66.83
   LOCATION L0001034     VOLUME   403221.255 3759559.597 66.77
   LOCATION L0001035     VOLUME   403213.778 3759555.368 66.73
   LOCATION L0001036     VOLUME   403206.300 3759551.138 66.47
   LOCATION L0001037     VOLUME   403198.823 3759546.909 66.17
   LOCATION L0001038     VOLUME   403191.345 3759542.679 65.89
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Offsite from Project dwy s/b along Whitter Frontage Rd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.25E-06
** Elevated
```

```
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 4
** 403383.146, 3759663.541, 69.95, 3.50, 4.00
** 403507.316, 3759446.613, 68.09, 3.50, 4.00
** 403511.242, 3759446.613, 68.15, 3.50, 4.00
** 403520.076, 3759451.030, 68.52, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0001039     VOLUME   403385.280 3759659.813 70.03
   LOCATION L0001040     VOLUME   403389.548 3759652.357 69.98
   LOCATION L0001041     VOLUME   403393.816 3759644.901 70.08
   LOCATION L0001042     VOLUME   403398.083 3759637.446 70.40
   LOCATION L0001043     VOLUME   403402.351 3759629.990 70.43
   LOCATION L0001044     VOLUME   403406.619 3759622.534 70.34
   LOCATION L0001045     VOLUME   403410.886 3759615.078 70.21
   LOCATION L0001046     VOLUME   403415.154 3759607.622 70.06
   LOCATION L0001047     VOLUME   403419.422 3759600.167 69.93
   LOCATION L0001048     VOLUME   403423.689 3759592.711 69.84
   LOCATION L0001049     VOLUME   403427.957 3759585.255 69.78
   LOCATION L0001050     VOLUME   403432.225 3759577.799 69.72
   LOCATION L0001051     VOLUME   403436.492 3759570.343 69.64
   LOCATION L0001052     VOLUME   403440.760 3759562.888 69.55
   LOCATION L0001053     VOLUME   403445.028 3759555.432 69.44
   LOCATION L0001054     VOLUME   403449.295 3759547.976 69.28
   LOCATION L0001055     VOLUME   403453.563 3759540.520 69.16
   LOCATION L0001056     VOLUME   403457.831 3759533.065 69.03
   LOCATION L0001057     VOLUME   403462.098 3759525.609 68.88
   LOCATION L0001058     VOLUME   403466.366 3759518.153 68.78
   LOCATION L0001059     VOLUME   403470.634 3759510.697 68.77
   LOCATION L0001060     VOLUME   403474.901 3759503.241 68.75
   LOCATION L0001061     VOLUME   403479.169 3759495.786 68.72
   LOCATION L0001062     VOLUME   403483.437 3759488.330 68.63
   LOCATION L0001063     VOLUME   403487.705 3759480.874 68.52
   LOCATION L0001064     VOLUME   403491.972 3759473.418 68.41
   LOCATION L0001065     VOLUME   403496.240 3759465.962 68.30
   LOCATION L0001066     VOLUME   403500.508 3759458.507 68.20
   LOCATION L0001067     VOLUME   403504.775 3759451.051 68.09
   LOCATION L0001068     VOLUME   403510.793 3759446.613 68.07
   LOCATION L0001069     VOLUME   403518.524 3759450.254 68.28
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC South on Whittier Blvd to Washington Blvd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 4.02E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
```

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** Nodes = 14
** 403526.824, 3759455.741, 68.65, 3.50, 4.00
** 403561.451, 3759395.666, 67.72, 3.50, 4.00
** 403590.654, 3759346.021, 66.66, 3.50, 4.00
** 403619.440, 3759297.627, 66.39, 3.50, 4.00
** 403665.747, 3759216.276, 64.97, 3.50, 4.00
** 403687.024, 3759180.815, 65.01, 3.50, 4.00
** 403697.453, 3759163.710, 64.84, 3.50, 4.00
** 403700.374, 3759155.367, 64.87, 3.50, 4.00
** 403700.791, 3759147.023, 64.93, 3.50, 4.00
** 403696.619, 3759138.679, 64.56, 3.50, 4.00
** 403687.441, 3759131.587, 64.03, 3.50, 4.00
** 403661.575, 3759130.753, 63.12, 3.50, 4.00
** 403635.293, 3759128.250, 62.14, 3.50, 4.00
** 403132.336, 3759031.102, 52.34, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0001070     VOLUME   403528.969 3759452.019 68.52
   LOCATION L0001071     VOLUME   403533.259 3759444.576 68.43
   LOCATION L0001072     VOLUME   403537.549 3759437.134 68.33
   LOCATION L0001073     VOLUME   403541.839 3759429.691 68.23
   LOCATION L0001074     VOLUME   403546.129 3759422.248 68.12
   LOCATION L0001075     VOLUME   403550.419 3759414.805 68.02
   LOCATION L0001076     VOLUME   403554.709 3759407.362 67.93
   LOCATION L0001077     VOLUME   403558.999 3759399.919 67.88
   LOCATION L0001078     VOLUME   403563.318 3759392.492 67.86
   LOCATION L0001079     VOLUME   403567.673 3759385.088 67.79
   LOCATION L0001080     VOLUME   403572.029 3759377.683 67.69
   LOCATION L0001081     VOLUME   403576.385 3759370.278 67.54
   LOCATION L0001082     VOLUME   403580.740 3759362.873 67.43
   LOCATION L0001083     VOLUME   403585.096 3759355.469 67.29
   LOCATION L0001084     VOLUME   403589.452 3759348.064 67.11
   LOCATION L0001085     VOLUME   403593.834 3759340.675 66.91
   LOCATION L0001086     VOLUME   403598.226 3759333.291 66.71
   LOCATION L0001087     VOLUME   403602.617 3759325.908 66.55
   LOCATION L0001088     VOLUME   403607.009 3759318.525 66.41
   LOCATION L0001089     VOLUME   403611.401 3759311.141 66.32
   LOCATION L0001090     VOLUME   403615.793 3759303.758 66.26
   LOCATION L0001091     VOLUME   403620.161 3759296.361 66.20
   LOCATION L0001092     VOLUME   403624.410 3759288.895 66.08
   LOCATION L0001093     VOLUME   403628.660 3759281.429 65.92
   LOCATION L0001094     VOLUME   403632.910 3759273.963 65.87
   LOCATION L0001095     VOLUME   403637.160 3759266.497 65.80
   LOCATION L0001096     VOLUME   403641.410 3759259.031 65.70
   LOCATION L0001097     VOLUME   403645.660 3759251.565 65.55
   LOCATION L0001098     VOLUME   403649.909 3759244.099 65.38
   LOCATION L0001099     VOLUME   403654.159 3759236.633 65.20
   LOCATION L0001100     VOLUME   403658.409 3759229.167 65.08
   LOCATION L0001101     VOLUME   403662.659 3759221.701 65.03
   LOCATION L0001102     VOLUME   403666.955 3759214.262 65.06
   LOCATION L0001103     VOLUME   403671.375 3759206.896 65.18
   LOCATION L0001104     VOLUME   403675.795 3759199.529 65.30
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LOCATION L0001105     VOLUME   403680.215 3759192.163 65.28
LOCATION L0001106     VOLUME   403684.635 3759184.796 65.20
LOCATION L0001107     VOLUME   403689.079 3759177.444 65.11
LOCATION L0001108     VOLUME   403693.552 3759170.109 65.01
LOCATION L0001109     VOLUME   403697.816 3759162.676 64.98
LOCATION L0001110     VOLUME   403700.416 3759154.521 64.94
LOCATION L0001111     VOLUME   403700.306 3759146.054 64.83
LOCATION L0001112     VOLUME   403696.345 3759138.468 64.60
LOCATION L0001113     VOLUME   403689.548 3759133.215 64.32
LOCATION L0001114     VOLUME   403681.516 3759131.396 64.05
LOCATION L0001115     VOLUME   403672.929 3759131.119 63.79
LOCATION L0001116     VOLUME   403664.343 3759130.842 63.54
LOCATION L0001117     VOLUME   403655.780 3759130.201 63.27
LOCATION L0001118     VOLUME   403647.228 3759129.386 62.98
LOCATION L0001119     VOLUME   403638.676 3759128.572 62.66
LOCATION L0001120     VOLUME   403630.194 3759127.265 62.32
LOCATION L0001121     VOLUME   403621.759 3759125.636 61.99
LOCATION L0001122     VOLUME   403613.325 3759124.006 61.67
LOCATION L0001123     VOLUME   403604.890 3759122.377 61.37
LOCATION L0001124     VOLUME   403596.455 3759120.748 61.06
LOCATION L0001125     VOLUME   403588.020 3759119.119 60.80
LOCATION L0001126     VOLUME   403579.585 3759117.489 60.59
LOCATION L0001127     VOLUME   403571.150 3759115.860 60.42
LOCATION L0001128     VOLUME   403562.715 3759114.231 60.30
LOCATION L0001129     VOLUME   403554.280 3759112.602 60.14
LOCATION L0001130     VOLUME   403545.845 3759110.973 59.97
LOCATION L0001131     VOLUME   403537.411 3759109.343 59.86
LOCATION L0001132     VOLUME   403528.976 3759107.714 59.74
LOCATION L0001133     VOLUME   403520.541 3759106.085 59.62
LOCATION L0001134     VOLUME   403512.106 3759104.456 59.52
LOCATION L0001135     VOLUME   403503.671 3759102.826 59.41
LOCATION L0001136     VOLUME   403495.236 3759101.197 59.29
LOCATION L0001137     VOLUME   403486.801 3759099.568 59.11
LOCATION L0001138     VOLUME   403478.366 3759097.939 58.94
LOCATION L0001139     VOLUME   403469.931 3759096.310 58.75
LOCATION L0001140     VOLUME   403461.496 3759094.680 58.50
LOCATION L0001141     VOLUME   403453.062 3759093.051 58.26
LOCATION L0001142     VOLUME   403444.627 3759091.422 58.02
LOCATION L0001143     VOLUME   403436.192 3759089.793 57.76
LOCATION L0001144     VOLUME   403427.757 3759088.163 57.55
LOCATION L0001145     VOLUME   403419.322 3759086.534 57.37
LOCATION L0001146     VOLUME   403410.887 3759084.905 57.32
LOCATION L0001147     VOLUME   403402.452 3759083.276 57.24
LOCATION L0001148     VOLUME   403394.017 3759081.647 57.13
LOCATION L0001149     VOLUME   403385.582 3759080.017 57.09
LOCATION L0001150     VOLUME   403377.147 3759078.388 57.03
LOCATION L0001151     VOLUME   403368.713 3759076.759 56.95
LOCATION L0001152     VOLUME   403360.278 3759075.130 56.89
LOCATION L0001153     VOLUME   403351.843 3759073.500 56.84
LOCATION L0001154     VOLUME   403343.408 3759071.871 56.78
LOCATION L0001155     VOLUME   403334.973 3759070.242 56.72
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   LOCATION L0001156     VOLUME   403326.538 3759068.613 56.65
   LOCATION L0001157     VOLUME   403318.103 3759066.984 56.57
   LOCATION L0001158     VOLUME   403309.668 3759065.354 56.37
   LOCATION L0001159     VOLUME   403301.233 3759063.725 56.17
   LOCATION L0001160     VOLUME   403292.799 3759062.096 55.97
   LOCATION L0001161     VOLUME   403284.364 3759060.467 55.70
   LOCATION L0001162     VOLUME   403275.929 3759058.837 55.41
   LOCATION L0001163     VOLUME   403267.494 3759057.208 55.13
   LOCATION L0001164     VOLUME   403259.059 3759055.579 54.93
   LOCATION L0001165     VOLUME   403250.624 3759053.950 54.75
   LOCATION L0001166     VOLUME   403242.189 3759052.321 54.55
   LOCATION L0001167     VOLUME   403233.754 3759050.691 54.50
   LOCATION L0001168     VOLUME   403225.319 3759049.062 54.47
   LOCATION L0001169     VOLUME   403216.884 3759047.433 54.40
   LOCATION L0001170     VOLUME   403208.450 3759045.804 54.23
   LOCATION L0001171     VOLUME   403200.015 3759044.174 54.01
   LOCATION L0001172     VOLUME   403191.580 3759042.545 53.80
   LOCATION L0001173     VOLUME   403183.145 3759040.916 53.54
   LOCATION L0001174     VOLUME   403174.710 3759039.287 53.26
   LOCATION L0001175     VOLUME   403166.275 3759037.658 53.01
   LOCATION L0001176     VOLUME   403157.840 3759036.028 52.81
   LOCATION L0001177     VOLUME   403149.405 3759034.399 52.62
   LOCATION L0001178     VOLUME   403140.970 3759032.770 52.43
   LOCATION L0001179     VOLUME   403132.535 3759031.141 52.25
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Northbound along Whitter Blvd
** PREFIX
** Length of Side = 10.11
** Configuration = Adjacent
** Emission Rate = 4.59E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 7
** 403541.907, 3759460.234, 69.09, 3.50, 4.70
** 403548.291, 3759465.199, 69.37, 3.50, 4.70
** 403540.134, 3759487.187, 69.75, 3.50, 4.70
** 403492.611, 3759570.175, 70.72, 3.50, 4.70
** 403452.890, 3759640.041, 71.88, 3.50, 4.70
** 403398.984, 3759724.801, 72.44, 3.50, 4.70
** 403007.874, 3760386.371, 71.03, 3.50, 4.70
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   LOCATION L0001180     VOLUME   403545.899 3759463.339 69.32
   LOCATION L0001181     VOLUME   403545.826 3759471.842 69.48
   LOCATION L0001182     VOLUME   403542.308 3759481.325 69.66
   LOCATION L0001183     VOLUME   403538.215 3759490.539 69.93
   LOCATION L0001184     VOLUME   403533.188 3759499.317 70.12
   LOCATION L0001185     VOLUME   403528.162 3759508.094 70.18
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LOCATION L0001186     VOLUME   403523.135 3759516.871 70.13
LOCATION L0001187     VOLUME   403518.109 3759525.649 70.26
LOCATION L0001188     VOLUME   403513.082 3759534.426 70.53
LOCATION L0001189     VOLUME   403508.056 3759543.204 70.83
LOCATION L0001190     VOLUME   403503.030 3759551.981 71.13
LOCATION L0001191     VOLUME   403498.003 3759560.759 71.07
LOCATION L0001192     VOLUME   403492.977 3759569.536 71.01
LOCATION L0001193     VOLUME   403487.976 3759578.328 70.99
LOCATION L0001194     VOLUME   403482.977 3759587.121 71.05
LOCATION L0001195     VOLUME   403477.977 3759595.914 71.14
LOCATION L0001196     VOLUME   403472.978 3759604.708 71.24
LOCATION L0001197     VOLUME   403467.979 3759613.501 71.43
LOCATION L0001198     VOLUME   403462.980 3759622.294 71.63
LOCATION L0001199     VOLUME   403457.981 3759631.087 71.77
LOCATION L0001200     VOLUME   403452.982 3759639.880 71.85
LOCATION L0001201     VOLUME   403447.562 3759648.419 71.87
LOCATION L0001202     VOLUME   403442.134 3759656.954 71.94
LOCATION L0001203     VOLUME   403436.705 3759665.489 72.05
LOCATION L0001204     VOLUME   403431.277 3759674.024 72.20
LOCATION L0001205     VOLUME   403425.849 3759682.559 72.31
LOCATION L0001206     VOLUME   403420.421 3759691.094 72.30
LOCATION L0001207     VOLUME   403414.993 3759699.629 72.34
LOCATION L0001208     VOLUME   403409.565 3759708.164 72.42
LOCATION L0001209     VOLUME   403404.137 3759716.699 72.47
LOCATION L0001210     VOLUME   403398.723 3759725.243 72.48
LOCATION L0001211     VOLUME   403393.576 3759733.950 72.47
LOCATION L0001212     VOLUME   403388.428 3759742.657 72.44
LOCATION L0001213     VOLUME   403383.281 3759751.364 72.37
LOCATION L0001214     VOLUME   403378.133 3759760.071 72.29
LOCATION L0001215     VOLUME   403372.986 3759768.778 72.20
LOCATION L0001216     VOLUME   403367.838 3759777.485 72.12
LOCATION L0001217     VOLUME   403362.691 3759786.192 72.06
LOCATION L0001218     VOLUME   403357.543 3759794.899 72.03
LOCATION L0001219     VOLUME   403352.396 3759803.606 72.02
LOCATION L0001220     VOLUME   403347.248 3759812.313 71.99
LOCATION L0001221     VOLUME   403342.101 3759821.020 71.94
LOCATION L0001222     VOLUME   403336.953 3759829.727 71.89
LOCATION L0001223     VOLUME   403331.806 3759838.434 71.81
LOCATION L0001224     VOLUME   403326.658 3759847.141 71.78
LOCATION L0001225     VOLUME   403321.511 3759855.848 71.74
LOCATION L0001226     VOLUME   403316.364 3759864.555 71.66
LOCATION L0001227     VOLUME   403311.216 3759873.262 71.53
LOCATION L0001228     VOLUME   403306.069 3759881.969 71.43
LOCATION L0001229     VOLUME   403300.921 3759890.677 71.36
LOCATION L0001230     VOLUME   403295.774 3759899.384 71.35
LOCATION L0001231     VOLUME   403290.626 3759908.091 71.32
LOCATION L0001232     VOLUME   403285.479 3759916.798 71.27
LOCATION L0001233     VOLUME   403280.331 3759925.505 71.20
LOCATION L0001234     VOLUME   403275.184 3759934.212 71.19
LOCATION L0001235     VOLUME   403270.036 3759942.919 71.22
LOCATION L0001236     VOLUME   403264.889 3759951.626 71.20
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   LOCATION L0001237     VOLUME   403259.741 3759960.333 71.10
   LOCATION L0001238     VOLUME   403254.594 3759969.040 71.01
   LOCATION L0001239     VOLUME   403249.446 3759977.747 70.98
   LOCATION L0001240     VOLUME   403244.299 3759986.454 70.96
   LOCATION L0001241     VOLUME   403239.151 3759995.161 70.92
   LOCATION L0001242     VOLUME   403234.004 3760003.868 70.88
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   LOCATION L0001245     VOLUME   403218.561 3760029.989 70.75
   LOCATION L0001246     VOLUME   403213.414 3760038.696 70.67
   LOCATION L0001247     VOLUME   403208.267 3760047.403 70.56
   LOCATION L0001248     VOLUME   403203.119 3760056.110 70.47
   LOCATION L0001249     VOLUME   403197.972 3760064.817 70.46
   LOCATION L0001250     VOLUME   403192.824 3760073.525 70.49
   LOCATION L0001251     VOLUME   403187.677 3760082.232 70.47
   LOCATION L0001252     VOLUME   403182.529 3760090.939 70.45
   LOCATION L0001253     VOLUME   403177.382 3760099.646 70.42
   LOCATION L0001254     VOLUME   403172.234 3760108.353 70.40
   LOCATION L0001255     VOLUME   403167.087 3760117.060 70.47
   LOCATION L0001256     VOLUME   403161.939 3760125.767 70.47
   LOCATION L0001257     VOLUME   403156.792 3760134.474 70.40
   LOCATION L0001258     VOLUME   403151.644 3760143.181 70.29
   LOCATION L0001259     VOLUME   403146.497 3760151.888 70.32
   LOCATION L0001260     VOLUME   403141.349 3760160.595 70.34
   LOCATION L0001261     VOLUME   403136.202 3760169.302 70.30
   LOCATION L0001262     VOLUME   403131.054 3760178.009 70.19
   LOCATION L0001263     VOLUME   403125.907 3760186.716 70.07
   LOCATION L0001264     VOLUME   403120.759 3760195.423 69.98
   LOCATION L0001265     VOLUME   403115.612 3760204.130 69.95
   LOCATION L0001266     VOLUME   403110.464 3760212.837 70.08
   LOCATION L0001267     VOLUME   403105.317 3760221.544 70.15
   LOCATION L0001268     VOLUME   403100.170 3760230.251 70.18
   LOCATION L0001269     VOLUME   403095.022 3760238.958 70.24
   LOCATION L0001270     VOLUME   403089.875 3760247.665 70.34
   LOCATION L0001271     VOLUME   403084.727 3760256.373 70.40
   LOCATION L0001272     VOLUME   403079.580 3760265.080 70.43
   LOCATION L0001273     VOLUME   403074.432 3760273.787 70.55
   LOCATION L0001274     VOLUME   403069.285 3760282.494 70.74
   LOCATION L0001275     VOLUME   403064.137 3760291.201 70.91
   LOCATION L0001276     VOLUME   403058.990 3760299.908 71.04
   LOCATION L0001277     VOLUME   403053.842 3760308.615 71.16
   LOCATION L0001278     VOLUME   403048.695 3760317.322 71.30
   LOCATION L0001279     VOLUME   403043.547 3760326.029 71.36
   LOCATION L0001280     VOLUME   403038.400 3760334.736 71.25
   LOCATION L0001281     VOLUME   403033.252 3760343.443 71.12
   LOCATION L0001282     VOLUME   403028.105 3760352.150 70.98
   LOCATION L0001283     VOLUME   403022.957 3760360.857 70.90
   LOCATION L0001284     VOLUME   403017.810 3760369.564 71.03
   LOCATION L0001285     VOLUME   403012.662 3760378.271 71.07
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
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   SRCPARAM STCK1         6.83E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK2         6.83E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK3         6.83E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK4         6.83E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK5         6.83E-06     3.500   366.000      51.9       0.1
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001013     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001014     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001015     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001016     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001017     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001018     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001019     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001020     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001021     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001022     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001023     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001024     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001025     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001026     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001027     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001028     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001029     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001030     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001031     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001032     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001033     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001034     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001035     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001036     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001037     0.0000001215      3.50      4.00      4.96
   SRCPARAM L0001038     0.0000001215      3.50      4.00      4.96
** ----------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001039     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001040     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001041     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001042     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001043     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001044     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001045     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001046     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001047     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001048     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001049     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001050     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001051     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001052     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001053     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001054     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001055     0.00000007258      3.50      4.00      1.63
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   SRCPARAM L0001056     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001057     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001058     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001059     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001060     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001061     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001062     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001063     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001064     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001065     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001066     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001067     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001068     0.00000007258      3.50      4.00      1.63
   SRCPARAM L0001069     0.00000007258      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001070     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001071     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001072     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001073     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001074     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001075     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001076     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001077     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001078     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001079     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001080     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001081     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001082     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001083     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001084     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001085     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001086     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001087     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001088     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001089     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001090     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001091     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001092     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001093     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001094     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001095     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001096     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001097     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001098     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001099     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001100     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001101     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001102     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001103     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001104     0.00000003655      3.50      4.00      1.63
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SRCPARAM L0001105     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001106     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001107     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001108     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001109     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001110     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001111     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001112     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001113     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001114     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001115     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001116     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001117     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001118     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001119     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001120     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001121     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001122     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001123     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001124     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001125     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001126     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001127     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001128     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001129     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001130     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001131     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001132     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001133     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001134     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001135     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001136     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001137     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001138     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001139     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001140     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001141     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001142     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001143     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001144     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001145     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001146     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001147     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001148     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001149     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001150     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001151     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001152     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001153     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001154     0.00000003655      3.50      4.00      1.63
SRCPARAM L0001155     0.00000003655      3.50      4.00      1.63
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   SRCPARAM L0001156     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001157     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001158     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001159     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001160     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001161     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001162     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001163     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001164     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001165     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001166     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001167     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001168     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001169     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001170     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001171     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001172     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001173     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001174     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001175     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001176     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001177     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001178     0.00000003655      3.50      4.00      1.63
   SRCPARAM L0001179     0.00000003655      3.50      4.00      1.63
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001180     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001181     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001182     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001183     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001184     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001185     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001186     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001187     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001188     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001189     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001190     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001191     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001192     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001193     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001194     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001195     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001196     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001197     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001198     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001199     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001200     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001201     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001202     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001203     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001204     0.0000000433      3.50      4.70      1.63
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SRCPARAM L0001205     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001206     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001207     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001208     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001209     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001210     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001211     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001212     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001213     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001214     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001215     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001216     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001217     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001218     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001219     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001220     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001221     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001222     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001223     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001224     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001225     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001226     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001227     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001228     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001229     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001230     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001231     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001232     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001233     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001234     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001235     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001236     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001237     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001238     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001239     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001240     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001241     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001242     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001243     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001244     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001245     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001246     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001247     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001248     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001249     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001250     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001251     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001252     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001253     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001254     0.0000000433      3.50      4.70      1.63
SRCPARAM L0001255     0.0000000433      3.50      4.70      1.63
```

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   SRCPARAM L0001257     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001258     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001259     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001260     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001261     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001262     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001263     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001264     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001265     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001266     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001267     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001268     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001269     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001270     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001271     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001272     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001273     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001274     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001275     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001276     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001277     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001278     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001279     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001280     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001281     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001282     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001283     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001284     0.0000000433      3.50      4.70      1.63
   SRCPARAM L0001285     0.0000000433      3.50      4.70      1.63
** ------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
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BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66

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BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00

XBADJ    STCK1           -18.55   -25.03   -30.75   -35.54   -39.24   -41.98
XBADJ    STCK1           -50.16   -56.82   -61.76   -77.50   -92.58  -104.85
XBADJ    STCK1          -113.93  -119.55  -121.54  -151.31  -178.11  -199.50
XBADJ    STCK1          -214.83  -225.08  -228.50  -224.98  -214.62  -201.31
XBADJ    STCK1          -196.71  -186.13  -169.90  -148.51  -122.60   -93.84
XBADJ    STCK1           -64.84   -33.87    -2.58     3.41    -4.11   -11.50

XBADJ    STCK2           -61.85   -77.35   -90.51  -100.91  -108.25  -112.51
XBADJ    STCK2          -120.08  -124.01  -124.17  -133.23  -139.95  -142.41
XBADJ    STCK2          -140.55  -134.41  -124.20  -141.67  -156.48  -166.53
XBADJ    STCK2          -171.52  -172.76  -168.74  -159.61  -145.62  -130.77
XBADJ    STCK2          -126.79  -118.94  -107.49   -92.77   -75.23   -56.27
XBADJ    STCK2           -38.22   -19.01     0.07    -6.22   -25.74   -44.47

XBADJ    STCK3           -31.60   -41.18   -49.50   -56.31   -61.42   -64.88
```

XBADJ	STCK3	-73.09	-79.09	-82.68	-96.44	-108.96	-118.18
XBADJ	STCK3	-123.81	-125.67	-123.72	-149.47	-172.32	-189.93
XBADJ	STCK3	-201.77	-208.94	-209.75	-204.20	-192.44	-178.41
XBADJ	STCK3	-173.78	-163.87	-148.98	-129.57	-106.21	-80.50
XBADJ	STCK3	-54.96	-27.75	-0.41	1.58	-9.90	-21.07
XBADJ	STCK4	-84.78	-104.42	-120.88	-133.68	-142.41	-147.03
XBADJ	STCK4	-153.92	-156.13	-153.59	-159.07	-161.41	-158.85
XBADJ	STCK4	-151.46	-139.47	-123.24	-134.73	-143.77	-148.44
XBADJ	STCK4	-148.60	-145.70	-138.37	-126.84	-111.45	-96.25
XBADJ	STCK4	-92.95	-86.83	-78.07	-66.94	-53.77	-39.84
XBADJ	STCK4	-27.31	-13.95	-0.88	-13.16	-38.44	-62.56
XBADJ	STCK5	-97.03	-123.24	-145.70	-163.73	0.00	0.00
XBADJ	STCK5	-193.72	-196.86	-194.01	-197.95	-197.57	-191.19
XBADJ	STCK5	-179.00	-161.37	-138.84	-143.56	-145.55	-143.12
XBADJ	STCK5	-136.34	-126.87	-113.55	-96.78	0.00	0.00
XBADJ	STCK5	-53.15	-46.10	-37.65	-28.06	-17.61	-7.49
XBADJ	STCK5	0.23	7.95	14.72	-4.33	-36.66	-67.88
YBADJ	STCK1	-35.50	-15.01	5.51	24.55	42.84	59.48
YBADJ	STCK1	77.36	87.00	94.00	98.14	100.03	98.88
YBADJ	STCK1	94.72	87.69	79.67	73.27	64.65	54.07
YBADJ	STCK1	35.50	15.01	-5.51	-24.55	-42.84	-59.48
YBADJ	STCK1	-77.36	-87.00	-94.00	-98.14	-100.03	-98.88
YBADJ	STCK1	-94.72	-87.69	-79.67	-73.27	-64.65	-54.07
YBADJ	STCK2	20.23	32.36	43.07	51.16	57.70	62.13
YBADJ	STCK2	67.72	65.37	61.03	54.84	47.70	39.12
YBADJ	STCK2	29.35	18.69	9.13	3.35	-2.53	-8.34
YBADJ	STCK2	-20.23	-32.36	-43.07	-51.16	-57.70	-62.13
YBADJ	STCK2	-67.72	-65.37	-61.03	-54.84	-47.70	-39.12
YBADJ	STCK2	-29.35	-18.69	-9.13	-3.35	2.53	8.34
YBADJ	STCK3	-16.56	1.38	18.84	34.42	48.96	61.65
YBADJ	STCK3	75.52	81.21	84.43	85.08	83.88	80.13
YBADJ	STCK3	73.94	65.51	56.76	50.34	42.39	33.15
YBADJ	STCK3	16.56	-1.38	-18.84	-34.42	-48.96	-61.65
YBADJ	STCK3	-75.52	-81.21	-84.43	-85.08	-83.88	-80.13
YBADJ	STCK3	-73.94	-65.51	-56.76	-50.34	-42.39	-33.15
YBADJ	STCK4	46.06	53.82	59.50	62.07	62.76	61.18
YBADJ	STCK4	60.79	52.66	42.94	31.91	20.64	8.74
YBADJ	STCK4	-3.42	-15.48	-25.39	-30.48	-34.65	-37.76
YBADJ	STCK4	-46.06	-53.82	-59.50	-62.07	-62.76	-61.18
YBADJ	STCK4	-60.79	-52.66	-42.94	-31.91	-20.64	-8.74
YBADJ	STCK4	3.42	15.48	25.39	30.48	34.65	37.76
YBADJ	STCK5	84.95	89.98	91.85	89.62	0.00	0.00
YBADJ	STCK5	69.61	54.44	37.62	19.65	1.82	-16.07
YBADJ	STCK5	-33.48	-49.86	-63.06	-70.28	-75.38	-78.18

```
   YBADJ    STCK5          -84.95   -89.98   -91.85   -89.62     0.00     0.00
   YBADJ    STCK5          -69.61   -54.44   -37.62   -19.65    -1.82    16.07
   YBADJ    STCK5           33.48    49.86    63.06    70.28    75.38    78.18

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "19391 Whittier Blvd BP 1st 14 YR.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC"
   PROFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL"
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "19391 WHITTIER BLVD BP 1ST 14 YR.AD\PE00GALL.PLT" 31
   SUMMFILE "19391 Whittier Blvd BP 1st 14 YR.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            7 Warning Message(s)
 A Total of            0 Informational Message(s)
```

```
   ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     408        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     409        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     410        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     411        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     412        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
ME W186     896       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used         0.50
ME W187     896       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

**********************************
*** SETUP Finishes Successfully ***
**********************************


*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                       ***        19:04:48
                                                                                                        PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

** Model Options Selected:
     * Model Uses Regulatory DEFAULT Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE  =  F
     * Model Uses NO WET DEPLETION. WETDPLT  =  F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   278 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes:    278 Source(s);       1 Source Group(s); and     450 Receptor(s)
```

```
              with:      5 POINT(s), including
                         0 POINTCAP(s) and      0 POINTHOR(s)
               and:    273 VOLUME source(s)
               and:      0 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 RLINE/RLINEXT source(s)
               and:      0 OPENPIT source(s)
               and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
               and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
        Model Outputs Tables of PERIOD Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
        Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      4.0 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   19391 Whittier Blvd BP 1st 14 YR.err
**File for Summary of Results:   19391 Whittier Blvd BP 1st 14 YR.sum

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                               ***        19:04:48
                                                                                                               PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                   BASE     STACK   STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                      VARY BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

STCK1           0   0.68300E-05  403193.6 3759565.7    66.8     3.50   366.00    51.90     0.10    YES     YES   NO
```

STCK2	0	0.68300E-05	403256.0	3759598.7	67.4	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK3	0	0.68300E-05	403214.6	3759575.3	66.9	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK4	0	0.68300E-05	403285.5	3759616.8	67.6	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK5	0	0.68300E-05	403325.9	3759622.1	67.8	3.50	366.00	51.90	0.10	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001013	0	0.12150E-06	403373.9	3759654.0	68.8	3.50	4.00	4.96	YES	
L0001014	0	0.12150E-06	403367.6	3759648.2	68.2	3.50	4.00	4.96	YES	
L0001015	0	0.12150E-06	403361.9	3759641.8	68.2	3.50	4.00	4.96	YES	
L0001016	0	0.12150E-06	403355.7	3759635.8	68.2	3.50	4.00	4.96	YES	
L0001017	0	0.12150E-06	403348.6	3759631.2	68.1	3.50	4.00	4.96	YES	
L0001018	0	0.12150E-06	403341.0	3759627.0	68.1	3.50	4.00	4.96	YES	
L0001019	0	0.12150E-06	403333.5	3759622.9	68.0	3.50	4.00	4.96	YES	
L0001020	0	0.12150E-06	403326.0	3759618.8	67.8	3.50	4.00	4.96	YES	
L0001021	0	0.12150E-06	403318.5	3759614.6	67.7	3.50	4.00	4.96	YES	
L0001022	0	0.12150E-06	403311.0	3759610.4	67.7	3.50	4.00	4.96	YES	
L0001023	0	0.12150E-06	403303.5	3759606.1	67.6	3.50	4.00	4.96	YES	
L0001024	0	0.12150E-06	403296.0	3759601.9	67.6	3.50	4.00	4.96	YES	
L0001025	0	0.12150E-06	403288.6	3759597.7	67.5	3.50	4.00	4.96	YES	
L0001026	0	0.12150E-06	403281.1	3759593.4	67.5	3.50	4.00	4.96	YES	
L0001027	0	0.12150E-06	403273.6	3759589.2	67.4	3.50	4.00	4.96	YES	
L0001028	0	0.12150E-06	403266.1	3759585.0	67.4	3.50	4.00	4.96	YES	
L0001029	0	0.12150E-06	403258.6	3759580.7	67.2	3.50	4.00	4.96	YES	
L0001030	0	0.12150E-06	403251.2	3759576.5	67.1	3.50	4.00	4.96	YES	
L0001031	0	0.12150E-06	403243.7	3759572.3	67.0	3.50	4.00	4.96	YES	
L0001032	0	0.12150E-06	403236.2	3759568.1	66.9	3.50	4.00	4.96	YES	
L0001033	0	0.12150E-06	403228.7	3759563.8	66.8	3.50	4.00	4.96	YES	
L0001034	0	0.12150E-06	403221.3	3759559.6	66.8	3.50	4.00	4.96	YES	
L0001035	0	0.12150E-06	403213.8	3759555.4	66.7	3.50	4.00	4.96	YES	
L0001036	0	0.12150E-06	403206.3	3759551.1	66.5	3.50	4.00	4.96	YES	
L0001037	0	0.12150E-06	403198.8	3759546.9	66.2	3.50	4.00	4.96	YES	
L0001038	0	0.12150E-06	403191.3	3759542.7	65.9	3.50	4.00	4.96	YES	
L0001039	0	0.72580E-07	403385.3	3759659.8	70.0	3.50	4.00	1.63	YES	
L0001040	0	0.72580E-07	403389.5	3759652.4	70.0	3.50	4.00	1.63	YES	
L0001041	0	0.72580E-07	403393.8	3759644.9	70.1	3.50	4.00	1.63	YES	
L0001042	0	0.72580E-07	403398.1	3759637.4	70.4	3.50	4.00	1.63	YES	
L0001043	0	0.72580E-07	403402.4	3759630.0	70.4	3.50	4.00	1.63	YES	
L0001044	0	0.72580E-07	403406.6	3759622.5	70.3	3.50	4.00	1.63	YES	
L0001045	0	0.72580E-07	403410.9	3759615.1	70.2	3.50	4.00	1.63	YES	

L0001046	0	0.72580E-07	403415.2	3759607.6	70.1	3.50	4.00	1.63	YES
L0001047	0	0.72580E-07	403419.4	3759600.2	69.9	3.50	4.00	1.63	YES
L0001048	0	0.72580E-07	403423.7	3759592.7	69.8	3.50	4.00	1.63	YES
L0001049	0	0.72580E-07	403428.0	3759585.3	69.8	3.50	4.00	1.63	YES
L0001050	0	0.72580E-07	403432.2	3759577.8	69.7	3.50	4.00	1.63	YES
L0001051	0	0.72580E-07	403436.5	3759570.3	69.6	3.50	4.00	1.63	YES
L0001052	0	0.72580E-07	403440.8	3759562.9	69.5	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001053	0	0.72580E-07	403445.0	3759555.4	69.4	3.50	4.00	1.63	YES	
L0001054	0	0.72580E-07	403449.3	3759548.0	69.3	3.50	4.00	1.63	YES	
L0001055	0	0.72580E-07	403453.6	3759540.5	69.2	3.50	4.00	1.63	YES	
L0001056	0	0.72580E-07	403457.8	3759533.1	69.0	3.50	4.00	1.63	YES	
L0001057	0	0.72580E-07	403462.1	3759525.6	68.9	3.50	4.00	1.63	YES	
L0001058	0	0.72580E-07	403466.4	3759518.2	68.8	3.50	4.00	1.63	YES	
L0001059	0	0.72580E-07	403470.6	3759510.7	68.8	3.50	4.00	1.63	YES	
L0001060	0	0.72580E-07	403474.9	3759503.2	68.8	3.50	4.00	1.63	YES	
L0001061	0	0.72580E-07	403479.2	3759495.8	68.7	3.50	4.00	1.63	YES	
L0001062	0	0.72580E-07	403483.4	3759488.3	68.6	3.50	4.00	1.63	YES	
L0001063	0	0.72580E-07	403487.7	3759480.9	68.5	3.50	4.00	1.63	YES	
L0001064	0	0.72580E-07	403492.0	3759473.4	68.4	3.50	4.00	1.63	YES	
L0001065	0	0.72580E-07	403496.2	3759466.0	68.3	3.50	4.00	1.63	YES	
L0001066	0	0.72580E-07	403500.5	3759458.5	68.2	3.50	4.00	1.63	YES	
L0001067	0	0.72580E-07	403504.8	3759451.1	68.1	3.50	4.00	1.63	YES	
L0001068	0	0.72580E-07	403510.8	3759446.6	68.1	3.50	4.00	1.63	YES	
L0001069	0	0.72580E-07	403518.5	3759450.3	68.3	3.50	4.00	1.63	YES	
L0001070	0	0.36550E-07	403529.0	3759452.0	68.5	3.50	4.00	1.63	YES	
L0001071	0	0.36550E-07	403533.3	3759444.6	68.4	3.50	4.00	1.63	YES	
L0001072	0	0.36550E-07	403537.5	3759437.1	68.3	3.50	4.00	1.63	YES	
L0001073	0	0.36550E-07	403541.8	3759429.7	68.2	3.50	4.00	1.63	YES	
L0001074	0	0.36550E-07	403546.1	3759422.2	68.1	3.50	4.00	1.63	YES	
L0001075	0	0.36550E-07	403550.4	3759414.8	68.0	3.50	4.00	1.63	YES	
L0001076	0	0.36550E-07	403554.7	3759407.4	67.9	3.50	4.00	1.63	YES	
L0001077	0	0.36550E-07	403559.0	3759399.9	67.9	3.50	4.00	1.63	YES	
L0001078	0	0.36550E-07	403563.3	3759392.5	67.9	3.50	4.00	1.63	YES	
L0001079	0	0.36550E-07	403567.7	3759385.1	67.8	3.50	4.00	1.63	YES	
L0001080	0	0.36550E-07	403572.0	3759377.7	67.7	3.50	4.00	1.63	YES	
L0001081	0	0.36550E-07	403576.4	3759370.3	67.5	3.50	4.00	1.63	YES	
L0001082	0	0.36550E-07	403580.7	3759362.9	67.4	3.50	4.00	1.63	YES	

L0001083	0	0.36550E-07	403585.1	3759355.5	67.3	3.50	4.00	1.63	YES
L0001084	0	0.36550E-07	403589.5	3759348.1	67.1	3.50	4.00	1.63	YES
L0001085	0	0.36550E-07	403593.8	3759340.7	66.9	3.50	4.00	1.63	YES
L0001086	0	0.36550E-07	403598.2	3759333.3	66.7	3.50	4.00	1.63	YES
L0001087	0	0.36550E-07	403602.6	3759325.9	66.5	3.50	4.00	1.63	YES
L0001088	0	0.36550E-07	403607.0	3759318.5	66.4	3.50	4.00	1.63	YES
L0001089	0	0.36550E-07	403611.4	3759311.1	66.3	3.50	4.00	1.63	YES
L0001090	0	0.36550E-07	403615.8	3759303.8	66.3	3.50	4.00	1.63	YES
L0001091	0	0.36550E-07	403620.2	3759296.4	66.2	3.50	4.00	1.63	YES
L0001092	0	0.36550E-07	403624.4	3759288.9	66.1	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001093	0	0.36550E-07	403628.7	3759281.4	65.9	3.50	4.00	1.63	YES	
L0001094	0	0.36550E-07	403632.9	3759274.0	65.9	3.50	4.00	1.63	YES	
L0001095	0	0.36550E-07	403637.2	3759266.5	65.8	3.50	4.00	1.63	YES	
L0001096	0	0.36550E-07	403641.4	3759259.0	65.7	3.50	4.00	1.63	YES	
L0001097	0	0.36550E-07	403645.7	3759251.6	65.5	3.50	4.00	1.63	YES	
L0001098	0	0.36550E-07	403649.9	3759244.1	65.4	3.50	4.00	1.63	YES	
L0001099	0	0.36550E-07	403654.2	3759236.6	65.2	3.50	4.00	1.63	YES	
L0001100	0	0.36550E-07	403658.4	3759229.2	65.1	3.50	4.00	1.63	YES	
L0001101	0	0.36550E-07	403662.7	3759221.7	65.0	3.50	4.00	1.63	YES	
L0001102	0	0.36550E-07	403667.0	3759214.3	65.1	3.50	4.00	1.63	YES	
L0001103	0	0.36550E-07	403671.4	3759206.9	65.2	3.50	4.00	1.63	YES	
L0001104	0	0.36550E-07	403675.8	3759199.5	65.3	3.50	4.00	1.63	YES	
L0001105	0	0.36550E-07	403680.2	3759192.2	65.3	3.50	4.00	1.63	YES	
L0001106	0	0.36550E-07	403684.6	3759184.8	65.2	3.50	4.00	1.63	YES	
L0001107	0	0.36550E-07	403689.1	3759177.4	65.1	3.50	4.00	1.63	YES	
L0001108	0	0.36550E-07	403693.6	3759170.1	65.0	3.50	4.00	1.63	YES	
L0001109	0	0.36550E-07	403697.8	3759162.7	65.0	3.50	4.00	1.63	YES	
L0001110	0	0.36550E-07	403700.4	3759154.5	64.9	3.50	4.00	1.63	YES	
L0001111	0	0.36550E-07	403700.3	3759146.1	64.8	3.50	4.00	1.63	YES	
L0001112	0	0.36550E-07	403696.3	3759138.5	64.6	3.50	4.00	1.63	YES	
L0001113	0	0.36550E-07	403689.5	3759133.2	64.3	3.50	4.00	1.63	YES	
L0001114	0	0.36550E-07	403681.5	3759131.4	64.0	3.50	4.00	1.63	YES	
L0001115	0	0.36550E-07	403672.9	3759131.1	63.8	3.50	4.00	1.63	YES	
L0001116	0	0.36550E-07	403664.3	3759130.8	63.5	3.50	4.00	1.63	YES	
L0001117	0	0.36550E-07	403655.8	3759130.2	63.3	3.50	4.00	1.63	YES	
L0001118	0	0.36550E-07	403647.2	3759129.4	63.0	3.50	4.00	1.63	YES	
L0001119	0	0.36550E-07	403638.7	3759128.6	62.7	3.50	4.00	1.63	YES	

L0001120	0	0.36550E-07	403630.2	3759127.3	62.3	3.50	4.00	1.63	YES
L0001121	0	0.36550E-07	403621.8	3759125.6	62.0	3.50	4.00	1.63	YES
L0001122	0	0.36550E-07	403613.3	3759124.0	61.7	3.50	4.00	1.63	YES
L0001123	0	0.36550E-07	403604.9	3759122.4	61.4	3.50	4.00	1.63	YES
L0001124	0	0.36550E-07	403596.5	3759120.7	61.1	3.50	4.00	1.63	YES
L0001125	0	0.36550E-07	403588.0	3759119.1	60.8	3.50	4.00	1.63	YES
L0001126	0	0.36550E-07	403579.6	3759117.5	60.6	3.50	4.00	1.63	YES
L0001127	0	0.36550E-07	403571.1	3759115.9	60.4	3.50	4.00	1.63	YES
L0001128	0	0.36550E-07	403562.7	3759114.2	60.3	3.50	4.00	1.63	YES
L0001129	0	0.36550E-07	403554.3	3759112.6	60.1	3.50	4.00	1.63	YES
L0001130	0	0.36550E-07	403545.8	3759111.0	60.0	3.50	4.00	1.63	YES
L0001131	0	0.36550E-07	403537.4	3759109.3	59.9	3.50	4.00	1.63	YES
L0001132	0	0.36550E-07	403529.0	3759107.7	59.7	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001133	0	0.36550E-07	403520.5	3759106.1	59.6	3.50	4.00	1.63	YES	
L0001134	0	0.36550E-07	403512.1	3759104.5	59.5	3.50	4.00	1.63	YES	
L0001135	0	0.36550E-07	403503.7	3759102.8	59.4	3.50	4.00	1.63	YES	
L0001136	0	0.36550E-07	403495.2	3759101.2	59.3	3.50	4.00	1.63	YES	
L0001137	0	0.36550E-07	403486.8	3759099.6	59.1	3.50	4.00	1.63	YES	
L0001138	0	0.36550E-07	403478.4	3759097.9	58.9	3.50	4.00	1.63	YES	
L0001139	0	0.36550E-07	403469.9	3759096.3	58.8	3.50	4.00	1.63	YES	
L0001140	0	0.36550E-07	403461.5	3759094.7	58.5	3.50	4.00	1.63	YES	
L0001141	0	0.36550E-07	403453.1	3759093.1	58.3	3.50	4.00	1.63	YES	
L0001142	0	0.36550E-07	403444.6	3759091.4	58.0	3.50	4.00	1.63	YES	
L0001143	0	0.36550E-07	403436.2	3759089.8	57.8	3.50	4.00	1.63	YES	
L0001144	0	0.36550E-07	403427.8	3759088.2	57.5	3.50	4.00	1.63	YES	
L0001145	0	0.36550E-07	403419.3	3759086.5	57.4	3.50	4.00	1.63	YES	
L0001146	0	0.36550E-07	403410.9	3759084.9	57.3	3.50	4.00	1.63	YES	
L0001147	0	0.36550E-07	403402.5	3759083.3	57.2	3.50	4.00	1.63	YES	
L0001148	0	0.36550E-07	403394.0	3759081.6	57.1	3.50	4.00	1.63	YES	
L0001149	0	0.36550E-07	403385.6	3759080.0	57.1	3.50	4.00	1.63	YES	
L0001150	0	0.36550E-07	403377.1	3759078.4	57.0	3.50	4.00	1.63	YES	
L0001151	0	0.36550E-07	403368.7	3759076.8	56.9	3.50	4.00	1.63	YES	
L0001152	0	0.36550E-07	403360.3	3759075.1	56.9	3.50	4.00	1.63	YES	
L0001153	0	0.36550E-07	403351.8	3759073.5	56.8	3.50	4.00	1.63	YES	
L0001154	0	0.36550E-07	403343.4	3759071.9	56.8	3.50	4.00	1.63	YES	
L0001155	0	0.36550E-07	403335.0	3759070.2	56.7	3.50	4.00	1.63	YES	
L0001156	0	0.36550E-07	403326.5	3759068.6	56.6	3.50	4.00	1.63	YES	

L0001157	0	0.36550E-07	403318.1	3759067.0	56.6	3.50	4.00	1.63	YES
L0001158	0	0.36550E-07	403309.7	3759065.4	56.4	3.50	4.00	1.63	YES
L0001159	0	0.36550E-07	403301.2	3759063.7	56.2	3.50	4.00	1.63	YES
L0001160	0	0.36550E-07	403292.8	3759062.1	56.0	3.50	4.00	1.63	YES
L0001161	0	0.36550E-07	403284.4	3759060.5	55.7	3.50	4.00	1.63	YES
L0001162	0	0.36550E-07	403275.9	3759058.8	55.4	3.50	4.00	1.63	YES
L0001163	0	0.36550E-07	403267.5	3759057.2	55.1	3.50	4.00	1.63	YES
L0001164	0	0.36550E-07	403259.1	3759055.6	54.9	3.50	4.00	1.63	YES
L0001165	0	0.36550E-07	403250.6	3759053.9	54.8	3.50	4.00	1.63	YES
L0001166	0	0.36550E-07	403242.2	3759052.3	54.5	3.50	4.00	1.63	YES
L0001167	0	0.36550E-07	403233.8	3759050.7	54.5	3.50	4.00	1.63	YES
L0001168	0	0.36550E-07	403225.3	3759049.1	54.5	3.50	4.00	1.63	YES
L0001169	0	0.36550E-07	403216.9	3759047.4	54.4	3.50	4.00	1.63	YES
L0001170	0	0.36550E-07	403208.5	3759045.8	54.2	3.50	4.00	1.63	YES
L0001171	0	0.36550E-07	403200.0	3759044.2	54.0	3.50	4.00	1.63	YES
L0001172	0	0.36550E-07	403191.6	3759042.5	53.8	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001173	0	0.36550E-07	403183.1	3759040.9	53.5	3.50	4.00	1.63	YES	
L0001174	0	0.36550E-07	403174.7	3759039.3	53.3	3.50	4.00	1.63	YES	
L0001175	0	0.36550E-07	403166.3	3759037.7	53.0	3.50	4.00	1.63	YES	
L0001176	0	0.36550E-07	403157.8	3759036.0	52.8	3.50	4.00	1.63	YES	
L0001177	0	0.36550E-07	403149.4	3759034.4	52.6	3.50	4.00	1.63	YES	
L0001178	0	0.36550E-07	403141.0	3759032.8	52.4	3.50	4.00	1.63	YES	
L0001179	0	0.36550E-07	403132.5	3759031.1	52.2	3.50	4.00	1.63	YES	
L0001180	0	0.43300E-07	403545.9	3759463.3	69.3	3.50	4.70	1.63	YES	
L0001181	0	0.43300E-07	403545.8	3759471.8	69.5	3.50	4.70	1.63	YES	
L0001182	0	0.43300E-07	403542.3	3759481.3	69.7	3.50	4.70	1.63	YES	
L0001183	0	0.43300E-07	403538.2	3759490.5	69.9	3.50	4.70	1.63	YES	
L0001184	0	0.43300E-07	403533.2	3759499.3	70.1	3.50	4.70	1.63	YES	
L0001185	0	0.43300E-07	403528.2	3759508.1	70.2	3.50	4.70	1.63	YES	
L0001186	0	0.43300E-07	403523.1	3759516.9	70.1	3.50	4.70	1.63	YES	
L0001187	0	0.43300E-07	403518.1	3759525.6	70.3	3.50	4.70	1.63	YES	
L0001188	0	0.43300E-07	403513.1	3759534.4	70.5	3.50	4.70	1.63	YES	
L0001189	0	0.43300E-07	403508.1	3759543.2	70.8	3.50	4.70	1.63	YES	
L0001190	0	0.43300E-07	403503.0	3759552.0	71.1	3.50	4.70	1.63	YES	
L0001191	0	0.43300E-07	403498.0	3759560.8	71.1	3.50	4.70	1.63	YES	
L0001192	0	0.43300E-07	403493.0	3759569.5	71.0	3.50	4.70	1.63	YES	
L0001193	0	0.43300E-07	403488.0	3759578.3	71.0	3.50	4.70	1.63	YES	

L0001194	0	0.43300E-07	403483.0	3759587.1	71.0	3.50	4.70	1.63	YES
L0001195	0	0.43300E-07	403478.0	3759595.9	71.1	3.50	4.70	1.63	YES
L0001196	0	0.43300E-07	403473.0	3759604.7	71.2	3.50	4.70	1.63	YES
L0001197	0	0.43300E-07	403468.0	3759613.5	71.4	3.50	4.70	1.63	YES
L0001198	0	0.43300E-07	403463.0	3759622.3	71.6	3.50	4.70	1.63	YES
L0001199	0	0.43300E-07	403458.0	3759631.1	71.8	3.50	4.70	1.63	YES
L0001200	0	0.43300E-07	403453.0	3759639.9	71.8	3.50	4.70	1.63	YES
L0001201	0	0.43300E-07	403447.6	3759648.4	71.9	3.50	4.70	1.63	YES
L0001202	0	0.43300E-07	403442.1	3759657.0	71.9	3.50	4.70	1.63	YES
L0001203	0	0.43300E-07	403436.7	3759665.5	72.0	3.50	4.70	1.63	YES
L0001204	0	0.43300E-07	403431.3	3759674.0	72.2	3.50	4.70	1.63	YES
L0001205	0	0.43300E-07	403425.8	3759682.6	72.3	3.50	4.70	1.63	YES
L0001206	0	0.43300E-07	403420.4	3759691.1	72.3	3.50	4.70	1.63	YES
L0001207	0	0.43300E-07	403415.0	3759699.6	72.3	3.50	4.70	1.63	YES
L0001208	0	0.43300E-07	403409.6	3759708.2	72.4	3.50	4.70	1.63	YES
L0001209	0	0.43300E-07	403404.1	3759716.7	72.5	3.50	4.70	1.63	YES
L0001210	0	0.43300E-07	403398.7	3759725.2	72.5	3.50	4.70	1.63	YES
L0001211	0	0.43300E-07	403393.6	3759733.9	72.5	3.50	4.70	1.63	YES
L0001212	0	0.43300E-07	403388.4	3759742.7	72.4	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001213	0	0.43300E-07	403383.3	3759751.4	72.4	3.50	4.70	1.63	YES	
L0001214	0	0.43300E-07	403378.1	3759760.1	72.3	3.50	4.70	1.63	YES	
L0001215	0	0.43300E-07	403373.0	3759768.8	72.2	3.50	4.70	1.63	YES	
L0001216	0	0.43300E-07	403367.8	3759777.5	72.1	3.50	4.70	1.63	YES	
L0001217	0	0.43300E-07	403362.7	3759786.2	72.1	3.50	4.70	1.63	YES	
L0001218	0	0.43300E-07	403357.5	3759794.9	72.0	3.50	4.70	1.63	YES	
L0001219	0	0.43300E-07	403352.4	3759803.6	72.0	3.50	4.70	1.63	YES	
L0001220	0	0.43300E-07	403347.2	3759812.3	72.0	3.50	4.70	1.63	YES	
L0001221	0	0.43300E-07	403342.1	3759821.0	71.9	3.50	4.70	1.63	YES	
L0001222	0	0.43300E-07	403337.0	3759829.7	71.9	3.50	4.70	1.63	YES	
L0001223	0	0.43300E-07	403331.8	3759838.4	71.8	3.50	4.70	1.63	YES	
L0001224	0	0.43300E-07	403326.7	3759847.1	71.8	3.50	4.70	1.63	YES	
L0001225	0	0.43300E-07	403321.5	3759855.8	71.7	3.50	4.70	1.63	YES	
L0001226	0	0.43300E-07	403316.4	3759864.6	71.7	3.50	4.70	1.63	YES	
L0001227	0	0.43300E-07	403311.2	3759873.3	71.5	3.50	4.70	1.63	YES	
L0001228	0	0.43300E-07	403306.1	3759882.0	71.4	3.50	4.70	1.63	YES	
L0001229	0	0.43300E-07	403300.9	3759890.7	71.4	3.50	4.70	1.63	YES	
L0001230	0	0.43300E-07	403295.8	3759899.4	71.3	3.50	4.70	1.63	YES	

L0001231	0	0.43300E-07	403290.6	3759908.1	71.3	3.50	4.70	1.63	YES
L0001232	0	0.43300E-07	403285.5	3759916.8	71.3	3.50	4.70	1.63	YES
L0001233	0	0.43300E-07	403280.3	3759925.5	71.2	3.50	4.70	1.63	YES
L0001234	0	0.43300E-07	403275.2	3759934.2	71.2	3.50	4.70	1.63	YES
L0001235	0	0.43300E-07	403270.0	3759942.9	71.2	3.50	4.70	1.63	YES
L0001236	0	0.43300E-07	403264.9	3759951.6	71.2	3.50	4.70	1.63	YES
L0001237	0	0.43300E-07	403259.7	3759960.3	71.1	3.50	4.70	1.63	YES
L0001238	0	0.43300E-07	403254.6	3759969.0	71.0	3.50	4.70	1.63	YES
L0001239	0	0.43300E-07	403249.4	3759977.7	71.0	3.50	4.70	1.63	YES
L0001240	0	0.43300E-07	403244.3	3759986.5	71.0	3.50	4.70	1.63	YES
L0001241	0	0.43300E-07	403239.2	3759995.2	70.9	3.50	4.70	1.63	YES
L0001242	0	0.43300E-07	403234.0	3760003.9	70.9	3.50	4.70	1.63	YES
L0001243	0	0.43300E-07	403228.9	3760012.6	70.8	3.50	4.70	1.63	YES
L0001244	0	0.43300E-07	403223.7	3760021.3	70.8	3.50	4.70	1.63	YES
L0001245	0	0.43300E-07	403218.6	3760030.0	70.8	3.50	4.70	1.63	YES
L0001246	0	0.43300E-07	403213.4	3760038.7	70.7	3.50	4.70	1.63	YES
L0001247	0	0.43300E-07	403208.3	3760047.4	70.6	3.50	4.70	1.63	YES
L0001248	0	0.43300E-07	403203.1	3760056.1	70.5	3.50	4.70	1.63	YES
L0001249	0	0.43300E-07	403198.0	3760064.8	70.5	3.50	4.70	1.63	YES
L0001250	0	0.43300E-07	403192.8	3760073.5	70.5	3.50	4.70	1.63	YES
L0001251	0	0.43300E-07	403187.7	3760082.2	70.5	3.50	4.70	1.63	YES
L0001252	0	0.43300E-07	403182.5	3760090.9	70.5	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001253	0	0.43300E-07	403177.4	3760099.6	70.4	3.50	4.70	1.63	YES	
L0001254	0	0.43300E-07	403172.2	3760108.4	70.4	3.50	4.70	1.63	YES	
L0001255	0	0.43300E-07	403167.1	3760117.1	70.5	3.50	4.70	1.63	YES	
L0001256	0	0.43300E-07	403161.9	3760125.8	70.5	3.50	4.70	1.63	YES	
L0001257	0	0.43300E-07	403156.8	3760134.5	70.4	3.50	4.70	1.63	YES	
L0001258	0	0.43300E-07	403151.6	3760143.2	70.3	3.50	4.70	1.63	YES	
L0001259	0	0.43300E-07	403146.5	3760151.9	70.3	3.50	4.70	1.63	YES	
L0001260	0	0.43300E-07	403141.3	3760160.6	70.3	3.50	4.70	1.63	YES	
L0001261	0	0.43300E-07	403136.2	3760169.3	70.3	3.50	4.70	1.63	YES	
L0001262	0	0.43300E-07	403131.1	3760178.0	70.2	3.50	4.70	1.63	YES	
L0001263	0	0.43300E-07	403125.9	3760186.7	70.1	3.50	4.70	1.63	YES	
L0001264	0	0.43300E-07	403120.8	3760195.4	70.0	3.50	4.70	1.63	YES	
L0001265	0	0.43300E-07	403115.6	3760204.1	70.0	3.50	4.70	1.63	YES	
L0001266	0	0.43300E-07	403110.5	3760212.8	70.1	3.50	4.70	1.63	YES	
L0001267	0	0.43300E-07	403105.3	3760221.5	70.1	3.50	4.70	1.63	YES	

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L0001268         0   0.43300E-07  403100.2 3760230.3    70.2     3.50     4.70     1.63     YES
L0001269         0   0.43300E-07  403095.0 3760239.0    70.2     3.50     4.70     1.63     YES
L0001270         0   0.43300E-07  403089.9 3760247.7    70.3     3.50     4.70     1.63     YES
L0001271         0   0.43300E-07  403084.7 3760256.4    70.4     3.50     4.70     1.63     YES
L0001272         0   0.43300E-07  403079.6 3760265.1    70.4     3.50     4.70     1.63     YES
L0001273         0   0.43300E-07  403074.4 3760273.8    70.5     3.50     4.70     1.63     YES
L0001274         0   0.43300E-07  403069.3 3760282.5    70.7     3.50     4.70     1.63     YES
L0001275         0   0.43300E-07  403064.1 3760291.2    70.9     3.50     4.70     1.63     YES
L0001276         0   0.43300E-07  403059.0 3760299.9    71.0     3.50     4.70     1.63     YES
L0001277         0   0.43300E-07  403053.8 3760308.6    71.2     3.50     4.70     1.63     YES
L0001278         0   0.43300E-07  403048.7 3760317.3    71.3     3.50     4.70     1.63     YES
L0001279         0   0.43300E-07  403043.5 3760326.0    71.4     3.50     4.70     1.63     YES
L0001280         0   0.43300E-07  403038.4 3760334.7    71.2     3.50     4.70     1.63     YES
L0001281         0   0.43300E-07  403033.3 3760343.4    71.1     3.50     4.70     1.63     YES
L0001282         0   0.43300E-07  403028.1 3760352.1    71.0     3.50     4.70     1.63     YES
L0001283         0   0.43300E-07  403023.0 3760360.9    70.9     3.50     4.70     1.63     YES
L0001284         0   0.43300E-07  403017.8 3760369.6    71.0     3.50     4.70     1.63     YES
L0001285         0   0.43300E-07  403012.7 3760378.3    71.1     3.50     4.70     1.63     YES

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                         ***        19:04:48
                                                                                                          PAGE  10
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                        SOURCE IDs
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 ALL        STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , L0001013    , L0001014    , L0001015    ,
            L0001016    , L0001017    , L0001018    , L0001019    , L0001020    , L0001021    , L0001022    , L0001023    ,
            L0001024    , L0001025    , L0001026    , L0001027    , L0001028    , L0001029    , L0001030    , L0001031    ,
            L0001032    , L0001033    , L0001034    , L0001035    , L0001036    , L0001037    , L0001038    , L0001039    ,
            L0001040    , L0001041    , L0001042    , L0001043    , L0001044    , L0001045    , L0001046    , L0001047    ,
            L0001048    , L0001049    , L0001050    , L0001051    , L0001052    , L0001053    , L0001054    , L0001055    ,
            L0001056    , L0001057    , L0001058    , L0001059    , L0001060    , L0001061    , L0001062    , L0001063    ,
            L0001064    , L0001065    , L0001066    , L0001067    , L0001068    , L0001069    , L0001070    , L0001071    ,
            L0001072    , L0001073    , L0001074    , L0001075    , L0001076    , L0001077    , L0001078    , L0001079    ,
            L0001080    , L0001081    , L0001082    , L0001083    , L0001084    , L0001085    , L0001086    , L0001087    ,
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L0001088 , L0001089 , L0001090 , L0001091 , L0001092 , L0001093 , L0001094 , L0001095 ,

L0001096 , L0001097 , L0001098 , L0001099 , L0001100 , L0001101 , L0001102 , L0001103 ,

L0001104 , L0001105 , L0001106 , L0001107 , L0001108 , L0001109 , L0001110 , L0001111 ,

L0001112 , L0001113 , L0001114 , L0001115 , L0001116 , L0001117 , L0001118 , L0001119 ,

L0001120 , L0001121 , L0001122 , L0001123 , L0001124 , L0001125 , L0001126 , L0001127 ,

L0001128 , L0001129 , L0001130 , L0001131 , L0001132 , L0001133 , L0001134 , L0001135 ,

L0001136 , L0001137 , L0001138 , L0001139 , L0001140 , L0001141 , L0001142 , L0001143 ,

L0001144 , L0001145 , L0001146 , L0001147 , L0001148 , L0001149 , L0001150 , L0001151 ,

L0001152 , L0001153 , L0001154 , L0001155 , L0001156 , L0001157 , L0001158 , L0001159 ,

L0001160 , L0001161 , L0001162 , L0001163 , L0001164 , L0001165 , L0001166 , L0001167 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID SOURCE IDs

L0001168 , L0001169 , L0001170 , L0001171 , L0001172 , L0001173 , L0001174 , L0001175 ,

L0001176 , L0001177 , L0001178 , L0001179 , L0001180 , L0001181 , L0001182 , L0001183 ,

L0001184 , L0001185 , L0001186 , L0001187 , L0001188 , L0001189 , L0001190 , L0001191 ,

L0001192 , L0001193 , L0001194 , L0001195 , L0001196 , L0001197 , L0001198 , L0001199 ,

L0001200 , L0001201 , L0001202 , L0001203 , L0001204 , L0001205 , L0001206 , L0001207 ,

L0001208 , L0001209 , L0001210 , L0001211 , L0001212 , L0001213 , L0001214 , L0001215 ,

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L0001224 , L0001225 , L0001226 , L0001227 , L0001228 , L0001229 , L0001230 , L0001231 ,

L0001232 , L0001233 , L0001234 , L0001235 , L0001236 , L0001237 , L0001238 , L0001239 ,

L0001240 , L0001241 , L0001242 , L0001243 , L0001244 , L0001245 , L0001246 , L0001247 ,

L0001248 , L0001249 , L0001250 , L0001251 , L0001252 , L0001253 , L0001254 , L0001255 ,

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L0001264 , L0001265 , L0001266 , L0001267 , L0001268 , L0001269 , L0001270 , L0001271 ,

L0001272 , L0001273 , L0001274 , L0001275 , L0001276 , L0001277 , L0001278 , L0001279 ,

L0001280 , L0001281 , L0001282 , L0001283 , L0001284 , L0001285 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	9818605.	STCK1 , STCK2 , STCK3 , STCK4 , STCK5 , L0001013 , L0001014 , L0001015 ,

L0001016 , L0001017 , L0001018 , L0001019 , L0001020 , L0001021 , L0001022 , L0001023 ,

L0001024 , L0001025 , L0001026 , L0001027 , L0001028 , L0001029 , L0001030 , L0001031 ,

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L0001040 , L0001041 , L0001042 , L0001043 , L0001044 , L0001045 , L0001046 , L0001047 ,

L0001048 , L0001049 , L0001050 , L0001051 , L0001052 , L0001053 , L0001054 , L0001055 ,

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L0001144 , L0001145 , L0001146 , L0001147 , L0001148 , L0001149 , L0001150 , L0001151 ,

L0001152 , L0001153 , L0001154 , L0001155 , L0001156 , L0001157 , L0001158 , L0001159 ,

L0001160 , L0001161 , L0001162 , L0001163 , L0001164 , L0001165 , L0001166 , L0001167 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0001168 , L0001169 , L0001170 , L0001171 , L0001172 , L0001173 , L0001174 , L0001175 ,

L0001176 , L0001177 , L0001178 , L0001179 , L0001180 , L0001181 , L0001182 , L0001183 ,

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L0001192 , L0001193 , L0001194 , L0001195 , L0001196 , L0001197 , L0001198 , L0001199 ,

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L0001208 , L0001209 , L0001210 , L0001211 , L0001212 , L0001213 , L0001214 , L0001215 ,

L0001216 , L0001217 , L0001218 , L0001219 , L0001220 , L0001221 , L0001222 , L0001223 ,

L0001224 , L0001225 , L0001226 , L0001227 , L0001228 , L0001229 , L0001230 , L0001231 ,

L0001232 , L0001233 , L0001234 , L0001235 , L0001236 , L0001237 , L0001238 , L0001239 ,

L0001240 , L0001241 , L0001242 , L0001243 , L0001244 , L0001245 , L0001246 , L0001247 ,

L0001248 , L0001249 , L0001250 , L0001251 , L0001252 , L0001253 , L0001254 , L0001255 ,

L0001256 , L0001257 , L0001258 , L0001259 , L0001260 , L0001261 , L0001262 , L0001263 ,

L0001264 , L0001265 , L0001266 , L0001267 , L0001268 , L0001269 , L0001270 , L0001271 ,

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-18.6,	-35.5,	2	10.7,	215.2,	250.1,	-25.0,	-15.0,
3	10.7,	198.7,	259.2,	-30.8,	5.5,	4	10.7,	178.8,	260.5,	-35.5,	24.6,
5	10.7,	153.4,	253.9,	-39.2,	42.8,	6	10.7,	124.1,	243.3,	-42.0,	59.5,
7	10.7,	147.9,	246.9,	-50.2,	77.4,	8	10.7,	182.2,	243.0,	-56.8,	87.0,
9	10.7,	211.0,	231.7,	-61.8,	94.0,	10	10.7,	233.4,	226.0,	-77.5,	98.1,
11	10.7,	250.1,	215.2,	-92.6,	100.0,	12	10.7,	259.2,	198.7,	-104.8,	98.9,
13	10.7,	260.5,	178.8,	-113.9,	94.7,	14	10.7,	253.9,	153.4,	-119.5,	87.7,
15	10.7,	243.3,	124.1,	-121.5,	79.7,	16	10.7,	246.9,	147.9,	-151.3,	73.3,
17	10.7,	243.0,	182.2,	-178.1,	64.6,	18	10.7,	231.7,	211.0,	-199.5,	54.1,
19	10.7,	226.0,	233.4,	-214.8,	35.5,	20	10.7,	215.2,	250.1,	-225.1,	15.0,
21	10.7,	198.7,	259.2,	-228.5,	-5.5,	22	10.7,	178.8,	260.5,	-225.0,	-24.6,
23	10.7,	153.4,	253.9,	-214.6,	-42.8,	24	10.7,	124.1,	243.3,	-201.3,	-59.5,
25	10.7,	147.9,	246.9,	-196.7,	-77.4,	26	10.7,	182.2,	243.0,	-186.1,	-87.0,
27	10.7,	211.0,	231.7,	-169.9,	-94.0,	28	10.7,	233.4,	226.0,	-148.5,	-98.1,
29	10.7,	250.1,	215.2,	-122.6,	-100.0,	30	10.7,	259.2,	198.7,	-93.8,	-98.9,
31	10.7,	260.5,	178.8,	-64.8,	-94.7,	32	10.7,	253.9,	153.4,	-33.9,	-87.7,
33	10.7,	243.3,	124.1,	-2.6,	-79.7,	34	10.7,	246.9,	147.9,	3.4,	-73.3,
35	10.7,	243.0,	182.2,	-4.1,	-64.6,	36	10.7,	231.7,	211.0,	-11.5,	-54.1,

SOURCE ID: STCK2

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-61.8,	20.2,	2	10.7,	215.2,	250.1,	-77.3,	32.4,
3	10.7,	198.7,	259.2,	-90.5,	43.1,	4	10.7,	178.8,	260.5,	-100.9,	51.2,
5	10.7,	153.4,	253.9,	-108.2,	57.7,	6	10.7,	124.1,	243.3,	-112.5,	62.1,
7	10.7,	147.9,	246.9,	-120.1,	67.7,	8	10.7,	182.2,	243.0,	-124.0,	65.4,
9	10.7,	211.0,	231.7,	-124.2,	61.0,	10	10.7,	233.4,	226.0,	-133.2,	54.8,
11	10.7,	250.1,	215.2,	-140.0,	47.7,	12	10.7,	259.2,	198.7,	-142.4,	39.1,
13	10.7,	260.5,	178.8,	-140.6,	29.4,	14	10.7,	253.9,	153.4,	-134.4,	18.7,
15	10.7,	243.3,	124.1,	-124.2,	9.1,	16	10.7,	246.9,	147.9,	-141.7,	3.3,
17	10.7,	243.0,	182.2,	-156.5,	-2.5,	18	10.7,	231.7,	211.0,	-166.5,	-8.3,
19	10.7,	226.0,	233.4,	-171.5,	-20.2,	20	10.7,	215.2,	250.1,	-172.8,	-32.4,
21	10.7,	198.7,	259.2,	-168.7,	-43.1,	22	10.7,	178.8,	260.5,	-159.6,	-51.2,
23	10.7,	153.4,	253.9,	-145.6,	-57.7,	24	10.7,	124.1,	243.3,	-130.8,	-62.1,
25	10.7,	147.9,	246.9,	-126.8,	-67.7,	26	10.7,	182.2,	243.0,	-118.9,	-65.4,
27	10.7,	211.0,	231.7,	-107.5,	-61.0,	28	10.7,	233.4,	226.0,	-92.8,	-54.8,
29	10.7,	250.1,	215.2,	-75.2,	-47.7,	30	10.7,	259.2,	198.7,	-56.3,	-39.1,

31	10.7,	260.5,	178.8,	-38.2,	-29.4,	32	10.7,	253.9,	153.4,	-19.0,	-18.7,
33	10.7,	243.3,	124.1,	0.1,	-9.1,	34	10.7,	246.9,	147.9,	-6.2,	-3.3,
35	10.7,	243.0,	182.2,	-25.7,	2.5,	36	10.7,	231.7,	211.0,	-44.5,	8.3,

SOURCE ID: STCK3

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-31.6,	-16.6,	2	10.7,	215.2,	250.1,	-41.2,	1.4,
3	10.7,	198.7,	259.2,	-49.5,	18.8,	4	10.7,	178.8,	260.5,	-56.3,	34.4,
5	10.7,	153.4,	253.9,	-61.4,	49.0,	6	10.7,	124.1,	243.3,	-64.9,	61.6,
7	10.7,	147.9,	246.9,	-73.1,	75.5,	8	10.7,	182.2,	243.0,	-79.1,	81.2,
9	10.7,	211.0,	231.7,	-82.7,	84.4,	10	10.7,	233.4,	226.0,	-96.4,	85.1,
11	10.7,	250.1,	215.2,	-109.0,	83.9,	12	10.7,	259.2,	198.7,	-118.2,	80.1,
13	10.7,	260.5,	178.8,	-123.8,	73.9,	14	10.7,	253.9,	153.4,	-125.7,	65.5,
15	10.7,	243.3,	124.1,	-123.7,	56.8,	16	10.7,	246.9,	147.9,	-149.5,	50.3,
17	10.7,	243.0,	182.2,	-172.3,	42.4,	18	10.7,	231.7,	211.0,	-189.9,	33.1,
19	10.7,	226.0,	233.4,	-201.8,	16.6,	20	10.7,	215.2,	250.1,	-208.9,	-1.4,
21	10.7,	198.7,	259.2,	-209.8,	-18.8,	22	10.7,	178.8,	260.5,	-204.2,	-34.4,
23	10.7,	153.4,	253.9,	-192.4,	-49.0,	24	10.7,	124.1,	243.3,	-178.4,	-61.6,
25	10.7,	147.9,	246.9,	-173.8,	-75.5,	26	10.7,	182.2,	243.0,	-163.9,	-81.2,
27	10.7,	211.0,	231.7,	-149.0,	-84.4,	28	10.7,	233.4,	226.0,	-129.6,	-85.1,
29	10.7,	250.1,	215.2,	-106.2,	-83.9,	30	10.7,	259.2,	198.7,	-80.5,	-80.1,
31	10.7,	260.5,	178.8,	-55.0,	-73.9,	32	10.7,	253.9,	153.4,	-27.8,	-65.5,
33	10.7,	243.3,	124.1,	-0.4,	-56.8,	34	10.7,	246.9,	147.9,	1.6,	-50.3,
35	10.7,	243.0,	182.2,	-9.9,	-42.4,	36	10.7,	231.7,	211.0,	-21.1,	-33.1,

SOURCE ID: STCK4

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-84.8,	46.1,	2	10.7,	215.2,	250.1,	-104.4,	53.8,
3	10.7,	198.7,	259.2,	-120.9,	59.5,	4	10.7,	178.8,	260.5,	-133.7,	62.1,
5	10.7,	153.4,	253.9,	-142.4,	62.8,	6	10.7,	124.1,	243.3,	-147.0,	61.2,
7	10.7,	147.9,	246.9,	-153.9,	60.8,	8	10.7,	182.2,	243.0,	-156.1,	52.7,
9	10.7,	211.0,	231.7,	-153.6,	42.9,	10	10.7,	233.4,	226.0,	-159.1,	31.9,
11	10.7,	250.1,	215.2,	-161.4,	20.6,	12	10.7,	259.2,	198.7,	-158.9,	8.7,
13	10.7,	260.5,	178.8,	-151.5,	-3.4,	14	10.7,	253.9,	153.4,	-139.5,	-15.5,
15	10.7,	243.3,	124.1,	-123.2,	-25.4,	16	10.7,	246.9,	147.9,	-134.7,	-30.5,
17	10.7,	243.0,	182.2,	-143.8,	-34.6,	18	10.7,	231.7,	211.0,	-148.4,	-37.8,
19	10.7,	226.0,	233.4,	-148.6,	-46.1,	20	10.7,	215.2,	250.1,	-145.7,	-53.8,
21	10.7,	198.7,	259.2,	-138.4,	-59.5,	22	10.7,	178.8,	260.5,	-126.8,	-62.1,
23	10.7,	153.4,	253.9,	-111.5,	-62.8,	24	10.7,	124.1,	243.3,	-96.2,	-61.2,
25	10.7,	147.9,	246.9,	-93.0,	-60.8,	26	10.7,	182.2,	243.0,	-86.8,	-52.7,
27	10.7,	211.0,	231.7,	-78.1,	-42.9,	28	10.7,	233.4,	226.0,	-66.9,	-31.9,
29	10.7,	250.1,	215.2,	-53.8,	-20.6,	30	10.7,	259.2,	198.7,	-39.8,	-8.7,
31	10.7,	260.5,	178.8,	-27.3,	3.4,	32	10.7,	253.9,	153.4,	-14.0,	15.5,
33	10.7,	243.3,	124.1,	-0.9,	25.4,	34	10.7,	246.9,	147.9,	-13.2,	30.5,
35	10.7,	243.0,	182.2,	-38.4,	34.6,	36	10.7,	231.7,	211.0,	-62.6,	37.8,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK5

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-97.0,	85.0,	2	10.7,	215.2,	250.1,	-123.2,	90.0,
3	10.7,	198.7,	259.2,	-145.7,	91.8,	4	10.7,	178.8,	260.5,	-163.7,	89.6,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	10.7,	147.9,	246.9,	-193.7,	69.6,	8	10.7,	182.2,	243.0,	-196.9,	54.4,
9	10.7,	211.0,	231.7,	-194.0,	37.6,	10	10.7,	233.4,	226.0,	-198.0,	19.7,
11	10.7,	250.1,	215.2,	-197.6,	1.8,	12	10.7,	259.2,	198.7,	-191.2,	-16.1,
13	10.7,	260.5,	178.8,	-179.0,	-33.5,	14	10.7,	253.9,	153.4,	-161.4,	-49.9,
15	10.7,	243.3,	124.1,	-138.8,	-63.1,	16	10.7,	246.9,	147.9,	-143.6,	-70.3,
17	10.7,	243.0,	182.2,	-145.6,	-75.4,	18	10.7,	231.7,	211.0,	-143.1,	-78.2,
19	10.7,	226.0,	233.4,	-136.3,	-85.0,	20	10.7,	215.2,	250.1,	-126.9,	-90.0,
21	10.7,	198.7,	259.2,	-113.5,	-91.8,	22	10.7,	178.8,	260.5,	-96.8,	-89.6,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	10.7,	147.9,	246.9,	-53.1,	-69.6,	26	10.7,	182.2,	243.0,	-46.1,	-54.4,
27	10.7,	211.0,	231.7,	-37.6,	-37.6,	28	10.7,	233.4,	226.0,	-28.1,	-19.7,
29	10.7,	250.1,	215.2,	-17.6,	-1.8,	30	10.7,	259.2,	198.7,	-7.5,	16.1,
31	10.7,	260.5,	178.8,	0.2,	33.5,	32	10.7,	253.9,	153.4,	8.0,	49.9,
33	10.7,	243.3,	124.1,	14.7,	63.1,	34	10.7,	246.9,	147.9,	-4.3,	70.3,
35	10.7,	243.0,	182.2,	-36.7,	75.4,	36	10.7,	231.7,	211.0,	-67.9,	78.2,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

402680.3, 402746.2, 402812.2, 402878.1, 402944.0, 403010.0, 403075.9, 403141.8, 403207.8, 403273.7,
403339.6, 403405.5, 403471.5, 403537.4, 403603.3, 403669.3, 403735.2, 403801.1, 403867.1, 403933.0,
403998.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3759000.9, 3759070.5, 3759140.2, 3759209.8, 3759279.4, 3759349.0, 3759418.7, 3759488.3, 3759557.9, 3759627.6,
3759697.2, 3759766.8, 3759836.5, 3759906.1, 3759975.7, 3760045.4, 3760115.0, 3760184.6, 3760254.2, 3760323.9,
3760393.5,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	65.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	56.20	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	59.50
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	55.00	55.10	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	78.20	79.70	82.10	84.30	85.20	87.50	88.10	90.20	92.90
3760323.87	76.50	78.70	80.70	82.30	83.80	84.90	86.10	88.80	90.70
3760254.24	75.30	77.80	78.80	80.80	82.10	83.20	84.90	87.20	89.70

3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	84.00	86.10	88.20
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	87.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	66.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	94.90	97.60	99.60
3760323.87	92.60	95.30	97.80
3760254.24	91.60	94.30	96.20
3760184.61	91.00	92.90	95.10
3760114.98	90.20	92.20	94.00
3760045.35	89.50	91.10	93.10
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40
3759279.42	69.70	70.80	72.20
3759209.79	68.20	69.70	71.50
3759140.16	67.40	68.50	70.00

3759070.53	66.00	67.90	69.10
3759000.90	65.80	66.90	68.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	67.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	59.00	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	62.60
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	57.50	56.80	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13

3760393.50	78.20	79.70	82.10	324.50	361.90	361.90	361.90	361.90	361.90
3760323.87	76.50	78.70	80.70	82.30	324.50	361.90	361.90	361.90	361.90
3760254.24	75.30	77.80	78.80	80.80	82.10	324.70	324.70	361.90	361.90
3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	324.50	324.70	336.70
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	323.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	70.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	361.90	361.90	361.90
3760323.87	361.90	361.90	361.90
3760254.24	361.90	361.90	361.90
3760184.61	361.10	361.90	361.90
3760114.98	324.50	324.70	336.70
3760045.35	89.50	91.10	323.90
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40

3759279.42	69.70	70.80	72.20
3759209.79	68.20	69.70	71.50
3759140.16	67.40	68.50	70.00
3759070.53	66.00	67.90	69.10
3759000.90	65.80	66.90	68.20

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(403076.6, 3759566.9,	63.0,	63.0,	0.0);	(403074.6, 3759594.7,	63.1,	63.1,	0.0);
(403074.3, 3759652.4,	63.8,	63.8,	0.0);	(403036.2, 3759545.2,	61.6,	61.6,	0.0);
(403491.1, 3759689.7,	73.7,	73.7,	0.0);	(403558.2, 3759512.8,	71.0,	71.0,	0.0);
(403587.6, 3759479.4,	70.9,	70.9,	0.0);	(403471.1, 3759691.3,	73.3,	73.3,	0.0);
(403097.0, 3760166.2,	69.1,	69.1,	0.0);				

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0001018	403339.6	3759627.6	-7.09
L0001019	403339.6	3759627.6	-0.90
L0001035	403207.8	3759557.9	-2.06
L0001036	403207.8	3759557.9	-1.64
L0001043	403405.5	3759627.6	-4.59
L0001044	403405.5	3759627.6	-3.45
L0001074	403537.4	3759418.7	0.82
L0001102	403669.3	3759209.8	-3.56
L0001103	403669.3	3759209.8	-5.02
L0001154	403339.6	3759070.5	-4.58
L0001155	403339.6	3759070.5	-3.94
L0001182	403537.4	3759488.3	-1.57
L0001183	403537.4	3759488.3	-7.74
L0001198	403471.5	3759627.6	-0.10
L0001207	403405.5	3759697.2	-0.35
L0001222	403339.6	3759836.5	-2.86
L0001223	403339.6	3759836.5	-2.05

```
                         L0001246           403207.8     3760045.4           -1.37
                         L0001247           403207.8     3760045.4           -7.99
                         L0001271           403075.9     3760254.2           -1.02

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                                         ***        19:04:48
                                                                                                                          PAGE  25
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                              (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                  (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                                         ***        19:04:48
                                                                                                                          PAGE  26
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                      *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC                                          Met Version:  16216
  Profile file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL
  Surface format: FREE
  Profile format: FREE
  Surface station no.:     3166                 Upper air station no.:     3190
                Name: UNKNOWN                                 Name: UNKNOWN
                Year:   2010                                  Year:   2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01  -38.6  0.384 -9.000 -9.000 -999.  572.    162.4  0.34   0.73   1.00    3.10  321.    9.1  283.8    5.5
 10 01 01   1 02  -33.5  0.333 -9.000 -9.000 -999.  462.    121.8  0.34   0.73   1.00    2.70  217.    9.1  282.5    5.5
 10 01 01   1 03  -21.9  0.218 -9.000 -9.000 -999.  251.     52.2  0.34   0.73   1.00    1.80  290.    9.1  282.5    5.5
```

```
10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  255.    9.1  282.0    5.5
10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73   1.00    1.80  234.    9.1  282.0    5.5
10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  258.    9.1  282.0    5.5
10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  213.    9.1  281.4    5.5
10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73   0.54    2.70  215.    9.1  282.0    5.5
10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73   0.32    1.80  199.    9.1  284.2    5.5
10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73   0.24    2.70  117.    9.1  288.1    5.5
10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73   0.21    2.70  243.    9.1  290.4    5.5
10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73   0.20    1.80  130.    9.1  293.1    5.5
10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73   0.20    1.80  282.    9.1  294.9    5.5
10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73   0.21    1.30  290.    9.1  295.9    5.5
10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73   0.25    1.30  192.    9.1  294.9    5.5
10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73   0.33    1.30  218.    9.1  293.8    5.5
10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73   0.60    1.30  255.    9.1  292.0    5.5
10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73   1.00    0.90  129.    9.1  289.2    5.5
10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73   1.00    1.30  264.    9.1  287.5    5.5
10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73   1.00    1.30   25.    9.1  287.0    5.5
10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  343.    9.1  285.9    5.5
10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  332.    9.1  284.9    5.5
10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  178.    9.1  284.2    5.5
10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73   1.00    1.30   28.    9.1  283.1    5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 14YR 2027-2040                               ***        19:04:48
                                                                                                               PAGE  27
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               L0001013    , L0001014    , L0001015    , L0001016    , L0001017    , L0001018    , L0001019    , L0001020    ,
               L0001021    , L0001022    , L0001023    , L0001024    , L0001025    , L0001026    , L0001027    , L0001028    ,
               L0001029    , L0001030    , L0001031    , L0001032    , L0001033    , L0001034    , L0001035    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                      **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     402680.32    402746.25    402812.18    402878.11    402944.04    403009.97    403075.90    403141.83    403207.76
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3760393.50 |       0.00006      0.00007      0.00008      0.00010      0.00013      0.00028      0.00019      0.00016      0.00015
 3760323.87 |       0.00007      0.00008      0.00010      0.00012      0.00016      0.00031      0.00038      0.00022      0.00020
```

3760254.24	0.00008	0.00009	0.00011	0.00014	0.00018	0.00025	0.00057	0.00033	0.00026
3760184.61	0.00009	0.00011	0.00013	0.00016	0.00020	0.00025	0.00037	0.00069	0.00036
3760114.98	0.00010	0.00012	0.00015	0.00018	0.00023	0.00028	0.00036	0.00058	0.00054
3760045.35	0.00011	0.00013	0.00017	0.00021	0.00026	0.00032	0.00040	0.00050	0.00078
3759975.72	0.00012	0.00015	0.00018	0.00023	0.00029	0.00037	0.00046	0.00056	0.00073
3759906.09	0.00013	0.00016	0.00020	0.00026	0.00033	0.00041	0.00053	0.00065	0.00081
3759836.46	0.00014	0.00018	0.00022	0.00028	0.00036	0.00046	0.00060	0.00080	0.00107
3759766.83	0.00015	0.00019	0.00024	0.00030	0.00038	0.00050	0.00068	0.00114	0.00139
3759697.20	0.00015	0.00019	0.00025	0.00032	0.00040	0.00053	0.00079	0.00111	0.00152
3759627.57	0.00015	0.00020	0.00025	0.00032	0.00042	0.00057	0.00098	0.00104	0.00185
3759557.94	0.00015	0.00020	0.00025	0.00032	0.00043	0.00061	0.00098	0.00164	0.00255
3759488.31	0.00015	0.00019	0.00024	0.00032	0.00043	0.00062	0.00101	0.00163	0.00169
3759418.68	0.00014	0.00018	0.00023	0.00031	0.00043	0.00062	0.00085	0.00094	0.00079
3759349.05	0.00013	0.00017	0.00022	0.00030	0.00041	0.00053	0.00059	0.00057	0.00049
3759279.42	0.00012	0.00016	0.00021	0.00027	0.00034	0.00041	0.00041	0.00038	0.00034
3759209.79	0.00011	0.00014	0.00018	0.00023	0.00027	0.00030	0.00029	0.00027	0.00026
3759140.16	0.00010	0.00012	0.00015	0.00018	0.00021	0.00022	0.00022	0.00023	0.00024
3759070.53	0.00009	0.00011	0.00013	0.00014	0.00016	0.00017	0.00018	0.00027	0.00040
3759000.90	0.00008	0.00009	0.00010	0.00011	0.00012	0.00013	0.00015	0.00024	0.00025

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001013 , L0001014 , L0001015 , L0001016 , L0001017 , L0001018 , L0001019 , L0001020 ,
L0001021 , L0001022 , L0001023 , L0001024 , L0001025 , L0001026 , L0001027 , L0001028 ,
L0001029 , L0001030 , L0001031 , L0001032 , L0001033 , L0001034 , L0001035 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	0.00015	0.00014	0.00014	0.00013	0.00012	0.00011	0.00010	0.00009	0.00009
3760323.87	0.00019	0.00018	0.00017	0.00016	0.00015	0.00013	0.00012	0.00011	0.00010
3760254.24	0.00024	0.00023	0.00022	0.00020	0.00018	0.00016	0.00014	0.00013	0.00011
3760184.61	0.00032	0.00029	0.00027	0.00025	0.00022	0.00019	0.00017	0.00015	0.00013
3760114.98	0.00042	0.00038	0.00035	0.00031	0.00027	0.00023	0.00020	0.00017	0.00014
3760045.35	0.00058	0.00050	0.00045	0.00039	0.00033	0.00028	0.00023	0.00019	0.00016
3759975.72	0.00091	0.00067	0.00058	0.00049	0.00041	0.00033	0.00027	0.00021	0.00017
3759906.09	0.00116	0.00095	0.00076	0.00062	0.00050	0.00038	0.00029	0.00022	0.00017
3759836.46	0.00126	0.00140	0.00104	0.00077	0.00057	0.00041	0.00030	0.00022	0.00017
3759766.83	0.00167	0.00186	0.00152	0.00090	0.00060	0.00041	0.00029	0.00021	0.00016
3759697.20	0.00200	0.00164	0.00200	0.00097	0.00058	0.00039	0.00028	0.00020	0.00015
3759627.57	0.00234	0.00277	0.00201	0.00119	0.00058	0.00038	0.00027	0.00020	0.00015

3759557.94	0.00222	0.00155	0.00131	0.00130	0.00070	0.00039	0.00027	0.00020	0.00015
3759488.31	0.00129	0.00098	0.00086	0.00150	0.00093	0.00042	0.00027	0.00020	0.00015
3759418.68	0.00068	0.00061	0.00058	0.00063	0.00087	0.00045	0.00028	0.00020	0.00015
3759349.05	0.00044	0.00042	0.00041	0.00041	0.00046	0.00071	0.00031	0.00021	0.00016
3759279.42	0.00032	0.00032	0.00032	0.00032	0.00033	0.00049	0.00039	0.00023	0.00016
3759209.79	0.00026	0.00027	0.00027	0.00028	0.00029	0.00033	0.00056	0.00025	0.00016
3759140.16	0.00026	0.00028	0.00030	0.00034	0.00040	0.00052	0.00072	0.00026	0.00014
3759070.53	0.00060	0.00052	0.00057	0.00039	0.00030	0.00025	0.00021	0.00016	0.00012
3759000.90	0.00022	0.00021	0.00019	0.00018	0.00016	0.00015	0.00013	0.00011	0.00010

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001013 , L0001014 , L0001015 , L0001016 , L0001017 , L0001018 , L0001019 , L0001020 ,
L0001021 , L0001022 , L0001023 , L0001024 , L0001025 , L0001026 , L0001027 , L0001028 ,
L0001029 , L0001030 , L0001031 , L0001032 , L0001033 , L0001034 , L0001035 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	0.00008	0.00007	0.00006
3760323.87	0.00009	0.00008	0.00007
3760254.24	0.00010	0.00009	0.00008
3760184.61	0.00011	0.00009	0.00008
3760114.98	0.00012	0.00010	0.00009
3760045.35	0.00013	0.00011	0.00009
3759975.72	0.00013	0.00011	0.00009
3759906.09	0.00013	0.00011	0.00009
3759836.46	0.00013	0.00010	0.00008
3759766.83	0.00012	0.00010	0.00008
3759697.20	0.00012	0.00010	0.00008
3759627.57	0.00012	0.00009	0.00008
3759557.94	0.00012	0.00009	0.00008
3759488.31	0.00012	0.00009	0.00008
3759418.68	0.00012	0.00010	0.00008
3759349.05	0.00012	0.00010	0.00008
3759279.42	0.00012	0.00009	0.00008
3759209.79	0.00012	0.00009	0.00007
3759140.16	0.00011	0.00009	0.00007
3759070.53	0.00009	0.00008	0.00007
3759000.90	0.00008	0.00007	0.00006

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001013 , L0001014 , L0001015 , L0001016 , L0001017 , L0001018 , L0001019 , L0001020 ,
L0001021 , L0001022 , L0001023 , L0001024 , L0001025 , L0001026 , L0001027 , L0001028 ,
L0001029 , L0001030 , L0001031 , L0001032 , L0001033 , L0001034 , L0001035 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
403076.63	3759566.89	0.00099	403074.61	3759594.66	0.00098
403074.33	3759652.43	0.00093	403036.23	3759545.23	0.00072
403491.13	3759689.69	0.00082	403558.25	3759512.77	0.00068
403587.63	3759479.41	0.00049	403471.13	3759691.31	0.00098
403096.96	3760166.19	0.00043			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00277 AT	(403339.62, 3759627.57, 68.10, 68.10, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.00255 AT	(403207.76, 3759557.94, 66.70, 66.70, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.00234 AT	(403273.69, 3759627.57, 67.70, 67.70, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.00222 AT	(403273.69, 3759557.94, 66.40, 66.40, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.00201 AT	(403405.55, 3759627.57, 70.40, 70.40, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00200 AT	(403405.55, 3759697.20, 72.10, 72.10, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00200 AT	(403273.69, 3759697.20, 68.00, 68.00, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00186 AT	(403339.62, 3759766.83, 71.30, 71.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00185 AT	(403207.76, 3759627.57, 67.30, 67.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00169 AT	(403207.76, 3759488.31, 64.10, 64.10, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   9 Warning Message(s)
A Total of   1277 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   152 Calm Hours Identified

A Total of   1125 Missing Hours Identified (2.57 Percent)

   ******** FATAL ERROR MESSAGES ********
             *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   408   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   409   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   410   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   411   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   412   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
ME W186   896   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   896   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 15010101
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

   ****
   *** AERMOD Finishes Successfully ***
   ****

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.2.0
** Lakes Environmental Software Inc.
** Date: 6/26/2023
** File: C:\Lakes\AERMOD View\19391 Whittier Blvd BP 2nd 14YR\19391 Whittier Blvd BP 2nd 14YR.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE 19391 Whittier Blvd BP
   TITLETWO DPM Concentrations 2nd 14YR 2041-2054
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "19391 Whittier Blvd BP 2nd 14YR.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      403193.640  3759565.730       66.820
** DESCRSRC Truck idling Location
   LOCATION STCK2        POINT      403256.045  3759598.705       67.440
** DESCRSRC Truck idling Location
   LOCATION STCK3        POINT      403214.561  3759575.303       66.930
** DESCRSRC Truck idling Location
   LOCATION STCK4        POINT      403285.474  3759616.787       67.600
** DESCRSRC Truck idling Location
   LOCATION STCK5        POINT      403325.895  3759622.106       67.810
** DESCRSRC Truck idling Location
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-site truck travel
```

```
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.66E-06
** Elevated
** Building Height = 10.67
** SZINIT = 4.96
** Nodes = 6
** 403377.081, 3759656.927, 68.97, 3.50, 4.00
** 403368.321, 3759649.002, 68.27, 3.50, 4.00
** 403361.646, 3759641.493, 68.07, 3.50, 4.00
** 403353.721, 3759633.985, 68.07, 3.50, 4.00
** 403323.270, 3759617.299, 67.71, 3.50, 4.00
** 403189.785, 3759541.797, 65.87, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0001286     VOLUME   403373.895 3759654.046 68.80
   LOCATION L0001287     VOLUME   403367.608 3759648.200 68.24
   LOCATION L0001288     VOLUME   403361.900 3759641.779 68.19
   LOCATION L0001289     VOLUME   403355.687 3759635.848 68.25
   LOCATION L0001290     VOLUME   403348.563 3759631.158 68.15
   LOCATION L0001291     VOLUME   403341.029 3759627.030 68.08
   LOCATION L0001292     VOLUME   403333.495 3759622.902 67.96
   LOCATION L0001293     VOLUME   403325.961 3759618.774 67.80
   LOCATION L0001294     VOLUME   403318.463 3759614.581 67.70
   LOCATION L0001295     VOLUME   403310.986 3759610.351 67.69
   LOCATION L0001296     VOLUME   403303.508 3759606.122 67.65
   LOCATION L0001297     VOLUME   403296.031 3759601.892 67.57
   LOCATION L0001298     VOLUME   403288.553 3759597.663 67.52
   LOCATION L0001299     VOLUME   403281.076 3759593.433 67.47
   LOCATION L0001300     VOLUME   403273.598 3759589.204 67.42
   LOCATION L0001301     VOLUME   403266.120 3759584.974 67.36
   LOCATION L0001302     VOLUME   403258.643 3759580.745 67.21
   LOCATION L0001303     VOLUME   403251.165 3759576.515 67.10
   LOCATION L0001304     VOLUME   403243.688 3759572.286 67.02
   LOCATION L0001305     VOLUME   403236.210 3759568.056 66.91
   LOCATION L0001306     VOLUME   403228.733 3759563.827 66.83
   LOCATION L0001307     VOLUME   403221.255 3759559.597 66.77
   LOCATION L0001308     VOLUME   403213.778 3759555.368 66.73
   LOCATION L0001309     VOLUME   403206.300 3759551.138 66.47
   LOCATION L0001310     VOLUME   403198.823 3759546.909 66.17
   LOCATION L0001311     VOLUME   403191.345 3759542.679 65.89
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Offsite from Project dwy s/b along Whitter Frontage Rd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.98E-06
** Elevated
```

```
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 4
** 403383.146, 3759663.541, 69.95, 3.50, 4.00
** 403507.316, 3759446.613, 68.09, 3.50, 4.00
** 403511.242, 3759446.613, 68.15, 3.50, 4.00
** 403520.076, 3759451.030, 68.52, 3.50, 4.00
** ----------------------------------------------------------------------
   LOCATION L0001312     VOLUME   403385.280 3759659.813 70.03
   LOCATION L0001313     VOLUME   403389.548 3759652.357 69.98
   LOCATION L0001314     VOLUME   403393.816 3759644.901 70.08
   LOCATION L0001315     VOLUME   403398.083 3759637.446 70.40
   LOCATION L0001316     VOLUME   403402.351 3759629.990 70.43
   LOCATION L0001317     VOLUME   403406.619 3759622.534 70.34
   LOCATION L0001318     VOLUME   403410.886 3759615.078 70.21
   LOCATION L0001319     VOLUME   403415.154 3759607.622 70.06
   LOCATION L0001320     VOLUME   403419.422 3759600.167 69.93
   LOCATION L0001321     VOLUME   403423.689 3759592.711 69.84
   LOCATION L0001322     VOLUME   403427.957 3759585.255 69.78
   LOCATION L0001323     VOLUME   403432.225 3759577.799 69.72
   LOCATION L0001324     VOLUME   403436.492 3759570.343 69.64
   LOCATION L0001325     VOLUME   403440.760 3759562.888 69.55
   LOCATION L0001326     VOLUME   403445.028 3759555.432 69.44
   LOCATION L0001327     VOLUME   403449.295 3759547.976 69.28
   LOCATION L0001328     VOLUME   403453.563 3759540.520 69.16
   LOCATION L0001329     VOLUME   403457.831 3759533.065 69.03
   LOCATION L0001330     VOLUME   403462.098 3759525.609 68.88
   LOCATION L0001331     VOLUME   403466.366 3759518.153 68.78
   LOCATION L0001332     VOLUME   403470.634 3759510.697 68.77
   LOCATION L0001333     VOLUME   403474.901 3759503.241 68.75
   LOCATION L0001334     VOLUME   403479.169 3759495.786 68.72
   LOCATION L0001335     VOLUME   403483.437 3759488.330 68.63
   LOCATION L0001336     VOLUME   403487.705 3759480.874 68.52
   LOCATION L0001337     VOLUME   403491.972 3759473.418 68.41
   LOCATION L0001338     VOLUME   403496.240 3759465.962 68.30
   LOCATION L0001339     VOLUME   403500.508 3759458.507 68.20
   LOCATION L0001340     VOLUME   403504.775 3759451.051 68.09
   LOCATION L0001341     VOLUME   403510.793 3759446.613 68.07
   LOCATION L0001342     VOLUME   403518.524 3759450.254 68.28
** End of LINE VOLUME Source ID = SLINE2
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC South on Whittier Blvd to Washington Blvd
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.41E-07
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
```

```
** Nodes = 14
** 403526.824, 3759455.741, 68.65, 3.50, 4.00
** 403561.451, 3759395.666, 67.72, 3.50, 4.00
** 403590.654, 3759346.021, 66.66, 3.50, 4.00
** 403619.440, 3759297.627, 66.39, 3.50, 4.00
** 403665.747, 3759216.276, 64.97, 3.50, 4.00
** 403687.024, 3759180.815, 65.01, 3.50, 4.00
** 403697.453, 3759163.710, 64.84, 3.50, 4.00
** 403700.374, 3759155.367, 64.87, 3.50, 4.00
** 403700.791, 3759147.023, 64.93, 3.50, 4.00
** 403696.619, 3759138.679, 64.56, 3.50, 4.00
** 403687.441, 3759131.587, 64.03, 3.50, 4.00
** 403661.575, 3759130.753, 63.12, 3.50, 4.00
** 403635.293, 3759128.250, 62.14, 3.50, 4.00
** 403132.336, 3759031.102, 52.34, 3.50, 4.00
** ---------------------------------------------------------------------
   LOCATION L0001343     VOLUME   403528.969 3759452.019 68.52
   LOCATION L0001344     VOLUME   403533.259 3759444.576 68.43
   LOCATION L0001345     VOLUME   403537.549 3759437.134 68.33
   LOCATION L0001346     VOLUME   403541.839 3759429.691 68.23
   LOCATION L0001347     VOLUME   403546.129 3759422.248 68.12
   LOCATION L0001348     VOLUME   403550.419 3759414.805 68.02
   LOCATION L0001349     VOLUME   403554.709 3759407.362 67.93
   LOCATION L0001350     VOLUME   403558.999 3759399.919 67.88
   LOCATION L0001351     VOLUME   403563.318 3759392.492 67.86
   LOCATION L0001352     VOLUME   403567.673 3759385.088 67.79
   LOCATION L0001353     VOLUME   403572.029 3759377.683 67.69
   LOCATION L0001354     VOLUME   403576.385 3759370.278 67.54
   LOCATION L0001355     VOLUME   403580.740 3759362.873 67.43
   LOCATION L0001356     VOLUME   403585.096 3759355.469 67.29
   LOCATION L0001357     VOLUME   403589.452 3759348.064 67.11
   LOCATION L0001358     VOLUME   403593.834 3759340.675 66.91
   LOCATION L0001359     VOLUME   403598.226 3759333.291 66.71
   LOCATION L0001360     VOLUME   403602.617 3759325.908 66.55
   LOCATION L0001361     VOLUME   403607.009 3759318.525 66.41
   LOCATION L0001362     VOLUME   403611.401 3759311.141 66.32
   LOCATION L0001363     VOLUME   403615.793 3759303.758 66.26
   LOCATION L0001364     VOLUME   403620.161 3759296.361 66.20
   LOCATION L0001365     VOLUME   403624.410 3759288.895 66.08
   LOCATION L0001366     VOLUME   403628.660 3759281.429 65.92
   LOCATION L0001367     VOLUME   403632.910 3759273.963 65.87
   LOCATION L0001368     VOLUME   403637.160 3759266.497 65.80
   LOCATION L0001369     VOLUME   403641.410 3759259.031 65.70
   LOCATION L0001370     VOLUME   403645.660 3759251.565 65.55
   LOCATION L0001371     VOLUME   403649.909 3759244.099 65.38
   LOCATION L0001372     VOLUME   403654.159 3759236.633 65.20
   LOCATION L0001373     VOLUME   403658.409 3759229.167 65.08
   LOCATION L0001374     VOLUME   403662.659 3759221.701 65.03
   LOCATION L0001375     VOLUME   403666.955 3759214.262 65.06
   LOCATION L0001376     VOLUME   403671.375 3759206.896 65.18
   LOCATION L0001377     VOLUME   403675.795 3759199.529 65.30
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LOCATION L0001378     VOLUME   403680.215 3759192.163 65.28
LOCATION L0001379     VOLUME   403684.635 3759184.796 65.20
LOCATION L0001380     VOLUME   403689.079 3759177.444 65.11
LOCATION L0001381     VOLUME   403693.552 3759170.109 65.01
LOCATION L0001382     VOLUME   403697.816 3759162.676 64.98
LOCATION L0001383     VOLUME   403700.416 3759154.521 64.94
LOCATION L0001384     VOLUME   403700.306 3759146.054 64.83
LOCATION L0001385     VOLUME   403696.345 3759138.468 64.60
LOCATION L0001386     VOLUME   403689.548 3759133.215 64.32
LOCATION L0001387     VOLUME   403681.516 3759131.396 64.05
LOCATION L0001388     VOLUME   403672.929 3759131.119 63.79
LOCATION L0001389     VOLUME   403664.343 3759130.842 63.54
LOCATION L0001390     VOLUME   403655.780 3759130.201 63.27
LOCATION L0001391     VOLUME   403647.228 3759129.386 62.98
LOCATION L0001392     VOLUME   403638.676 3759128.572 62.66
LOCATION L0001393     VOLUME   403630.194 3759127.265 62.32
LOCATION L0001394     VOLUME   403621.759 3759125.636 61.99
LOCATION L0001395     VOLUME   403613.325 3759124.006 61.67
LOCATION L0001396     VOLUME   403604.890 3759122.377 61.37
LOCATION L0001397     VOLUME   403596.455 3759120.748 61.06
LOCATION L0001398     VOLUME   403588.020 3759119.119 60.80
LOCATION L0001399     VOLUME   403579.585 3759117.489 60.59
LOCATION L0001400     VOLUME   403571.150 3759115.860 60.42
LOCATION L0001401     VOLUME   403562.715 3759114.231 60.30
LOCATION L0001402     VOLUME   403554.280 3759112.602 60.14
LOCATION L0001403     VOLUME   403545.845 3759110.973 59.97
LOCATION L0001404     VOLUME   403537.411 3759109.343 59.86
LOCATION L0001405     VOLUME   403528.976 3759107.714 59.74
LOCATION L0001406     VOLUME   403520.541 3759106.085 59.62
LOCATION L0001407     VOLUME   403512.106 3759104.456 59.52
LOCATION L0001408     VOLUME   403503.671 3759102.826 59.41
LOCATION L0001409     VOLUME   403495.236 3759101.197 59.29
LOCATION L0001410     VOLUME   403486.801 3759099.568 59.11
LOCATION L0001411     VOLUME   403478.366 3759097.939 58.94
LOCATION L0001412     VOLUME   403469.931 3759096.310 58.75
LOCATION L0001413     VOLUME   403461.496 3759094.680 58.50
LOCATION L0001414     VOLUME   403453.062 3759093.051 58.26
LOCATION L0001415     VOLUME   403444.627 3759091.422 58.02
LOCATION L0001416     VOLUME   403436.192 3759089.793 57.76
LOCATION L0001417     VOLUME   403427.757 3759088.163 57.55
LOCATION L0001418     VOLUME   403419.322 3759086.534 57.37
LOCATION L0001419     VOLUME   403410.887 3759084.905 57.32
LOCATION L0001420     VOLUME   403402.452 3759083.276 57.24
LOCATION L0001421     VOLUME   403394.017 3759081.647 57.13
LOCATION L0001422     VOLUME   403385.582 3759080.017 57.09
LOCATION L0001423     VOLUME   403377.147 3759078.388 57.03
LOCATION L0001424     VOLUME   403368.713 3759076.759 56.95
LOCATION L0001425     VOLUME   403360.278 3759075.130 56.89
LOCATION L0001426     VOLUME   403351.843 3759073.500 56.84
LOCATION L0001427     VOLUME   403343.408 3759071.871 56.78
LOCATION L0001428     VOLUME   403334.973 3759070.242 56.72
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   LOCATION L0001429     VOLUME   403326.538 3759068.613 56.65
   LOCATION L0001430     VOLUME   403318.103 3759066.984 56.57
   LOCATION L0001431     VOLUME   403309.668 3759065.354 56.37
   LOCATION L0001432     VOLUME   403301.233 3759063.725 56.17
   LOCATION L0001433     VOLUME   403292.799 3759062.096 55.97
   LOCATION L0001434     VOLUME   403284.364 3759060.467 55.70
   LOCATION L0001435     VOLUME   403275.929 3759058.837 55.41
   LOCATION L0001436     VOLUME   403267.494 3759057.208 55.13
   LOCATION L0001437     VOLUME   403259.059 3759055.579 54.93
   LOCATION L0001438     VOLUME   403250.624 3759053.950 54.75
   LOCATION L0001439     VOLUME   403242.189 3759052.321 54.55
   LOCATION L0001440     VOLUME   403233.754 3759050.691 54.50
   LOCATION L0001441     VOLUME   403225.319 3759049.062 54.47
   LOCATION L0001442     VOLUME   403216.884 3759047.433 54.40
   LOCATION L0001443     VOLUME   403208.450 3759045.804 54.23
   LOCATION L0001444     VOLUME   403200.015 3759044.174 54.01
   LOCATION L0001445     VOLUME   403191.580 3759042.545 53.80
   LOCATION L0001446     VOLUME   403183.145 3759040.916 53.54
   LOCATION L0001447     VOLUME   403174.710 3759039.287 53.26
   LOCATION L0001448     VOLUME   403166.275 3759037.658 53.01
   LOCATION L0001449     VOLUME   403157.840 3759036.028 52.81
   LOCATION L0001450     VOLUME   403149.405 3759034.399 52.62
   LOCATION L0001451     VOLUME   403140.970 3759032.770 52.43
   LOCATION L0001452     VOLUME   403132.535 3759031.141 52.25
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Northbound along Whitter Blvd
** PREFIX
** Length of Side = 10.11
** Configuration = Adjacent
** Emission Rate = 4.04E-06
** Elevated
** Vertical Dimension = 7.00
** SZINIT = 1.63
** Nodes = 7
** 403541.907, 3759460.234, 69.09, 3.50, 4.70
** 403548.291, 3759465.199, 69.37, 3.50, 4.70
** 403540.134, 3759487.187, 69.75, 3.50, 4.70
** 403492.611, 3759570.175, 70.72, 3.50, 4.70
** 403452.890, 3759640.041, 71.88, 3.50, 4.70
** 403398.984, 3759724.801, 72.44, 3.50, 4.70
** 403007.874, 3760386.371, 71.03, 3.50, 4.70
** ----------------------------------------------------------------------
   LOCATION L0001453     VOLUME   403545.899 3759463.339 69.32
   LOCATION L0001454     VOLUME   403545.826 3759471.842 69.48
   LOCATION L0001455     VOLUME   403542.308 3759481.325 69.66
   LOCATION L0001456     VOLUME   403538.215 3759490.539 69.93
   LOCATION L0001457     VOLUME   403533.188 3759499.317 70.12
   LOCATION L0001458     VOLUME   403528.162 3759508.094 70.18
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LOCATION L0001459     VOLUME   403523.135 3759516.871 70.13
LOCATION L0001460     VOLUME   403518.109 3759525.649 70.26
LOCATION L0001461     VOLUME   403513.082 3759534.426 70.53
LOCATION L0001462     VOLUME   403508.056 3759543.204 70.83
LOCATION L0001463     VOLUME   403503.030 3759551.981 71.13
LOCATION L0001464     VOLUME   403498.003 3759560.759 71.07
LOCATION L0001465     VOLUME   403492.977 3759569.536 71.01
LOCATION L0001466     VOLUME   403487.976 3759578.328 70.99
LOCATION L0001467     VOLUME   403482.977 3759587.121 71.05
LOCATION L0001468     VOLUME   403477.977 3759595.914 71.14
LOCATION L0001469     VOLUME   403472.978 3759604.708 71.24
LOCATION L0001470     VOLUME   403467.979 3759613.501 71.43
LOCATION L0001471     VOLUME   403462.980 3759622.294 71.63
LOCATION L0001472     VOLUME   403457.981 3759631.087 71.77
LOCATION L0001473     VOLUME   403452.982 3759639.880 71.85
LOCATION L0001474     VOLUME   403447.562 3759648.419 71.87
LOCATION L0001475     VOLUME   403442.134 3759656.954 71.94
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LOCATION L0001477     VOLUME   403431.277 3759674.024 72.20
LOCATION L0001478     VOLUME   403425.849 3759682.559 72.31
LOCATION L0001479     VOLUME   403420.421 3759691.094 72.30
LOCATION L0001480     VOLUME   403414.993 3759699.629 72.34
LOCATION L0001481     VOLUME   403409.565 3759708.164 72.42
LOCATION L0001482     VOLUME   403404.137 3759716.699 72.47
LOCATION L0001483     VOLUME   403398.723 3759725.243 72.48
LOCATION L0001484     VOLUME   403393.576 3759733.950 72.47
LOCATION L0001485     VOLUME   403388.428 3759742.657 72.44
LOCATION L0001486     VOLUME   403383.281 3759751.364 72.37
LOCATION L0001487     VOLUME   403378.133 3759760.071 72.29
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LOCATION L0001489     VOLUME   403367.838 3759777.485 72.12
LOCATION L0001490     VOLUME   403362.691 3759786.192 72.06
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LOCATION L0001493     VOLUME   403347.248 3759812.313 71.99
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LOCATION L0001497     VOLUME   403326.658 3759847.141 71.78
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LOCATION L0001501     VOLUME   403306.069 3759881.969 71.43
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LOCATION L0001503     VOLUME   403295.774 3759899.384 71.35
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LOCATION L0001505     VOLUME   403285.479 3759916.798 71.27
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LOCATION L0001507     VOLUME   403275.184 3759934.212 71.19
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LOCATION L0001509     VOLUME   403264.889 3759951.626 71.20
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   LOCATION L0001514     VOLUME   403239.151 3759995.161 70.92
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   LOCATION L0001518     VOLUME   403218.561 3760029.989 70.75
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   LOCATION L0001523     VOLUME   403192.824 3760073.525 70.49
   LOCATION L0001524     VOLUME   403187.677 3760082.232 70.47
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   LOCATION L0001528     VOLUME   403167.087 3760117.060 70.47
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   LOCATION L0001530     VOLUME   403156.792 3760134.474 70.40
   LOCATION L0001531     VOLUME   403151.644 3760143.181 70.29
   LOCATION L0001532     VOLUME   403146.497 3760151.888 70.32
   LOCATION L0001533     VOLUME   403141.349 3760160.595 70.34
   LOCATION L0001534     VOLUME   403136.202 3760169.302 70.30
   LOCATION L0001535     VOLUME   403131.054 3760178.009 70.19
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   LOCATION L0001537     VOLUME   403120.759 3760195.423 69.98
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   LOCATION L0001539     VOLUME   403110.464 3760212.837 70.08
   LOCATION L0001540     VOLUME   403105.317 3760221.544 70.15
   LOCATION L0001541     VOLUME   403100.170 3760230.251 70.18
   LOCATION L0001542     VOLUME   403095.022 3760238.958 70.24
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   LOCATION L0001547     VOLUME   403069.285 3760282.494 70.74
   LOCATION L0001548     VOLUME   403064.137 3760291.201 70.91
   LOCATION L0001549     VOLUME   403058.990 3760299.908 71.04
   LOCATION L0001550     VOLUME   403053.842 3760308.615 71.16
   LOCATION L0001551     VOLUME   403048.695 3760317.322 71.30
   LOCATION L0001552     VOLUME   403043.547 3760326.029 71.36
   LOCATION L0001553     VOLUME   403038.400 3760334.736 71.25
   LOCATION L0001554     VOLUME   403033.252 3760343.443 71.12
   LOCATION L0001555     VOLUME   403028.105 3760352.150 70.98
   LOCATION L0001556     VOLUME   403022.957 3760360.857 70.90
   LOCATION L0001557     VOLUME   403017.810 3760369.564 71.03
   LOCATION L0001558     VOLUME   403012.662 3760378.271 71.07
** End of LINE VOLUME Source ID = SLINE4
** Source Parameters **
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   SRCPARAM STCK1         6.59E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK2         6.59E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK3         6.59E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK4         6.59E-06     3.500   366.000      51.9       0.1
   SRCPARAM STCK5         6.59E-06     3.500   366.000      51.9       0.1
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001286     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001287     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001288     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001289     0.0000001023      3.50      4.00      4.96
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   SRCPARAM L0001301     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001302     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001303     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001304     0.0000001023      3.50      4.00      4.96
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   SRCPARAM L0001308     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001309     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001310     0.0000001023      3.50      4.00      4.96
   SRCPARAM L0001311     0.0000001023      3.50      4.00      4.96
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** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001312     0.00000006387      3.50      4.00      1.63
   SRCPARAM L0001313     0.00000006387      3.50      4.00      1.63
   SRCPARAM L0001314     0.00000006387      3.50      4.00      1.63
   SRCPARAM L0001315     0.00000006387      3.50      4.00      1.63
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   SRCPARAM L0001320     0.00000006387      3.50      4.00      1.63
   SRCPARAM L0001321     0.00000006387      3.50      4.00      1.63
   SRCPARAM L0001322     0.00000006387      3.50      4.00      1.63
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   SRCPARAM L0001324     0.00000006387      3.50      4.00      1.63
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   SRCPARAM L0001328     0.00000006387      3.50      4.00      1.63
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   SRCPARAM L0001342     0.00000006387      3.50      4.00      1.63
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** LINE VOLUME Source ID = SLINE4
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SRCPARAM L0001478     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001479     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001481     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001482     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001483     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001484     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001485     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001486     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001488     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001495     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001496     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001497     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001498     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001506     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001519     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001520     0.00000003811      3.50      4.70      1.63
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SRCPARAM L0001522     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001523     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001524     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001525     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001526     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001527     0.00000003811      3.50      4.70      1.63
SRCPARAM L0001528     0.00000003811      3.50      4.70      1.63
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   SRCPARAM L0001551     0.00000003811      3.50      4.70      1.63
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   SRCPARAM L0001555     0.00000003811      3.50      4.70      1.63
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   SRCPARAM L0001557     0.00000003811      3.50      4.70      1.63
   SRCPARAM L0001558     0.00000003811      3.50      4.70      1.63
** ------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK1           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK2           10.67    10.67    10.67    10.67    10.67    10.67

   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
   BUILDHGT STCK3           10.67    10.67    10.67    10.67    10.67    10.67
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BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK4	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	0.00	0.00
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT STCK5	10.67	10.67	10.67	10.67	10.67	10.67
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK1	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK1	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK1	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK2	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK2	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK2	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK3	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK3	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK3	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK4	226.00	215.18	198.68	178.77	153.42	124.12
BUILDWID STCK4	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK4	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66
BUILDWID STCK5	226.00	215.18	198.68	178.77	0.00	0.00
BUILDWID STCK5	147.89	182.21	211.00	233.37	250.11	259.25
BUILDWID STCK5	260.52	253.86	243.28	246.87	242.96	231.66

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BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK1          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK1          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK1          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK2          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK2          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK2          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK3          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK3          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK3          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK4          233.37   250.11   259.25   260.52   253.86   243.28
BUILDLEN STCK4          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK4          178.77   153.42   124.12   147.89   182.21   211.00

BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00
BUILDLEN STCK5          233.37   250.11   259.25   260.52     0.00     0.00
BUILDLEN STCK5          246.87   242.96   231.66   226.00   215.18   198.68
BUILDLEN STCK5          178.77   153.42   124.12   147.89   182.21   211.00

XBADJ    STCK1           -18.55   -25.03   -30.75   -35.54   -39.24   -41.98
XBADJ    STCK1           -50.16   -56.82   -61.76   -77.50   -92.58  -104.85
XBADJ    STCK1          -113.93  -119.55  -121.54  -151.31  -178.11  -199.50
XBADJ    STCK1          -214.83  -225.08  -228.50  -224.98  -214.62  -201.31
XBADJ    STCK1          -196.71  -186.13  -169.90  -148.51  -122.60   -93.84
XBADJ    STCK1           -64.84   -33.87    -2.58     3.41    -4.11   -11.50

XBADJ    STCK2           -61.85   -77.35   -90.51  -100.91  -108.25  -112.51
XBADJ    STCK2          -120.08  -124.01  -124.17  -133.23  -139.95  -142.41
XBADJ    STCK2          -140.55  -134.41  -124.20  -141.67  -156.48  -166.53
XBADJ    STCK2          -171.52  -172.76  -168.74  -159.61  -145.62  -130.77
XBADJ    STCK2          -126.79  -118.94  -107.49   -92.77   -75.23   -56.27
XBADJ    STCK2           -38.22   -19.01     0.07    -6.22   -25.74   -44.47

XBADJ    STCK3           -31.60   -41.18   -49.50   -56.31   -61.42   -64.88
```

XBADJ	STCK3	-73.09	-79.09	-82.68	-96.44	-108.96	-118.18
XBADJ	STCK3	-123.81	-125.67	-123.72	-149.47	-172.32	-189.93
XBADJ	STCK3	-201.77	-208.94	-209.75	-204.20	-192.44	-178.41
XBADJ	STCK3	-173.78	-163.87	-148.98	-129.57	-106.21	-80.50
XBADJ	STCK3	-54.96	-27.75	-0.41	1.58	-9.90	-21.07
XBADJ	STCK4	-84.78	-104.42	-120.88	-133.68	-142.41	-147.03
XBADJ	STCK4	-153.92	-156.13	-153.59	-159.07	-161.41	-158.85
XBADJ	STCK4	-151.46	-139.47	-123.24	-134.73	-143.77	-148.44
XBADJ	STCK4	-148.60	-145.70	-138.37	-126.84	-111.45	-96.25
XBADJ	STCK4	-92.95	-86.83	-78.07	-66.94	-53.77	-39.84
XBADJ	STCK4	-27.31	-13.95	-0.88	-13.16	-38.44	-62.56
XBADJ	STCK5	-97.03	-123.24	-145.70	-163.73	0.00	0.00
XBADJ	STCK5	-193.72	-196.86	-194.01	-197.95	-197.57	-191.19
XBADJ	STCK5	-179.00	-161.37	-138.84	-143.56	-145.55	-143.12
XBADJ	STCK5	-136.34	-126.87	-113.55	-96.78	0.00	0.00
XBADJ	STCK5	-53.15	-46.10	-37.65	-28.06	-17.61	-7.49
XBADJ	STCK5	0.23	7.95	14.72	-4.33	-36.66	-67.88
YBADJ	STCK1	-35.50	-15.01	5.51	24.55	42.84	59.48
YBADJ	STCK1	77.36	87.00	94.00	98.14	100.03	98.88
YBADJ	STCK1	94.72	87.69	79.67	73.27	64.65	54.07
YBADJ	STCK1	35.50	15.01	-5.51	-24.55	-42.84	-59.48
YBADJ	STCK1	-77.36	-87.00	-94.00	-98.14	-100.03	-98.88
YBADJ	STCK1	-94.72	-87.69	-79.67	-73.27	-64.65	-54.07
YBADJ	STCK2	20.23	32.36	43.07	51.16	57.70	62.13
YBADJ	STCK2	67.72	65.37	61.03	54.84	47.70	39.12
YBADJ	STCK2	29.35	18.69	9.13	3.35	-2.53	-8.34
YBADJ	STCK2	-20.23	-32.36	-43.07	-51.16	-57.70	-62.13
YBADJ	STCK2	-67.72	-65.37	-61.03	-54.84	-47.70	-39.12
YBADJ	STCK2	-29.35	-18.69	-9.13	-3.35	2.53	8.34
YBADJ	STCK3	-16.56	1.38	18.84	34.42	48.96	61.65
YBADJ	STCK3	75.52	81.21	84.43	85.08	83.88	80.13
YBADJ	STCK3	73.94	65.51	56.76	50.34	42.39	33.15
YBADJ	STCK3	16.56	-1.38	-18.84	-34.42	-48.96	-61.65
YBADJ	STCK3	-75.52	-81.21	-84.43	-85.08	-83.88	-80.13
YBADJ	STCK3	-73.94	-65.51	-56.76	-50.34	-42.39	-33.15
YBADJ	STCK4	46.06	53.82	59.50	62.07	62.76	61.18
YBADJ	STCK4	60.79	52.66	42.94	31.91	20.64	8.74
YBADJ	STCK4	-3.42	-15.48	-25.39	-30.48	-34.65	-37.76
YBADJ	STCK4	-46.06	-53.82	-59.50	-62.07	-62.76	-61.18
YBADJ	STCK4	-60.79	-52.66	-42.94	-31.91	-20.64	-8.74
YBADJ	STCK4	3.42	15.48	25.39	30.48	34.65	37.76
YBADJ	STCK5	84.95	89.98	91.85	89.62	0.00	0.00
YBADJ	STCK5	69.61	54.44	37.62	19.65	1.82	-16.07
YBADJ	STCK5	-33.48	-49.86	-63.06	-70.28	-75.38	-78.18

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   YBADJ    STCK5          -84.95   -89.98   -91.85   -89.62     0.00     0.00
   YBADJ    STCK5          -69.61   -54.44   -37.62   -19.65    -1.82    16.07
   YBADJ    STCK5           33.48    49.86    63.06    70.28    75.38    78.18

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "19391 Whittier Blvd BP 2nd 14YR.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC"
   PROFFILE "E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL"
   SURFDATA 3166 2010
   UAIRDATA 3190 2010
   SITEDATA 99999 2010
   PROFBASE 58.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "19391 WHITTIER BLVD BP 2ND 14YR.AD\PE00GALL.PLT" 31
   SUMMFILE "19391 Whittier Blvd BP 2nd 14YR.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            7 Warning Message(s)
 A Total of            0 Informational Message(s)
```

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   ******** FATAL ERROR MESSAGES ********
             ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     408        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     409        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     410        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     411        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
SO W320     412        PPARM: Input Parameter May Be Out-of-Range for Parameter           VS
ME W186     896       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used         0.50
ME W187     896       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

**********************************
*** SETUP Finishes Successfully ***
**********************************


*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                     ***        19:44:58
                                                                                                          PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                        ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

** Model Options Selected:
     * Model Uses Regulatory DEFAULT Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE  =  F
     * Model Uses NO WET DEPLETION. WETDPLT  =  F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   278 Source(s),
       for Total of    1 Urban Area(s):
  Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes:    278 Source(s);       1 Source Group(s); and     450 Receptor(s)
```

```
              with:      5 POINT(s), including
                         0 POINTCAP(s) and      0 POINTHOR(s)
               and:    273 VOLUME source(s)
               and:      0 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 RLINE/RLINEXT source(s)
               and:      0 OPENPIT source(s)
               and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
               and:      0 SWPOINT source(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
        Model Outputs Tables of PERIOD Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
        Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    58.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      4.0 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   19391 Whittier Blvd BP 2nd 14YR.err
**File for Summary of Results:   19391 Whittier Blvd BP 2nd 14YR.sum

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                                  ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                                  ***        19:44:58
                                                                                                                      PAGE   2
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*


                                          *** POINT SOURCE DATA ***

             NUMBER EMISSION RATE                   BASE     STACK   STACK    STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
  SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
    ID        CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)                      VARY BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

STCK1           0   0.65900E-05  403193.6 3759565.7    66.8     3.50   366.00    51.90     0.10    YES     YES   NO
```

STCK2	0	0.65900E-05	403256.0	3759598.7	67.4	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK3	0	0.65900E-05	403214.6	3759575.3	66.9	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK4	0	0.65900E-05	403285.5	3759616.8	67.6	3.50	366.00	51.90	0.10	YES	YES	NO	
STCK5	0	0.65900E-05	403325.9	3759622.1	67.8	3.50	366.00	51.90	0.10	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001286	0	0.10230E-06	403373.9	3759654.0	68.8	3.50	4.00	4.96	YES	
L0001287	0	0.10230E-06	403367.6	3759648.2	68.2	3.50	4.00	4.96	YES	
L0001288	0	0.10230E-06	403361.9	3759641.8	68.2	3.50	4.00	4.96	YES	
L0001289	0	0.10230E-06	403355.7	3759635.8	68.2	3.50	4.00	4.96	YES	
L0001290	0	0.10230E-06	403348.6	3759631.2	68.1	3.50	4.00	4.96	YES	
L0001291	0	0.10230E-06	403341.0	3759627.0	68.1	3.50	4.00	4.96	YES	
L0001292	0	0.10230E-06	403333.5	3759622.9	68.0	3.50	4.00	4.96	YES	
L0001293	0	0.10230E-06	403326.0	3759618.8	67.8	3.50	4.00	4.96	YES	
L0001294	0	0.10230E-06	403318.5	3759614.6	67.7	3.50	4.00	4.96	YES	
L0001295	0	0.10230E-06	403311.0	3759610.4	67.7	3.50	4.00	4.96	YES	
L0001296	0	0.10230E-06	403303.5	3759606.1	67.6	3.50	4.00	4.96	YES	
L0001297	0	0.10230E-06	403296.0	3759601.9	67.6	3.50	4.00	4.96	YES	
L0001298	0	0.10230E-06	403288.6	3759597.7	67.5	3.50	4.00	4.96	YES	
L0001299	0	0.10230E-06	403281.1	3759593.4	67.5	3.50	4.00	4.96	YES	
L0001300	0	0.10230E-06	403273.6	3759589.2	67.4	3.50	4.00	4.96	YES	
L0001301	0	0.10230E-06	403266.1	3759585.0	67.4	3.50	4.00	4.96	YES	
L0001302	0	0.10230E-06	403258.6	3759580.7	67.2	3.50	4.00	4.96	YES	
L0001303	0	0.10230E-06	403251.2	3759576.5	67.1	3.50	4.00	4.96	YES	
L0001304	0	0.10230E-06	403243.7	3759572.3	67.0	3.50	4.00	4.96	YES	
L0001305	0	0.10230E-06	403236.2	3759568.1	66.9	3.50	4.00	4.96	YES	
L0001306	0	0.10230E-06	403228.7	3759563.8	66.8	3.50	4.00	4.96	YES	
L0001307	0	0.10230E-06	403221.3	3759559.6	66.8	3.50	4.00	4.96	YES	
L0001308	0	0.10230E-06	403213.8	3759555.4	66.7	3.50	4.00	4.96	YES	
L0001309	0	0.10230E-06	403206.3	3759551.1	66.5	3.50	4.00	4.96	YES	
L0001310	0	0.10230E-06	403198.8	3759546.9	66.2	3.50	4.00	4.96	YES	
L0001311	0	0.10230E-06	403191.3	3759542.7	65.9	3.50	4.00	4.96	YES	
L0001312	0	0.63870E-07	403385.3	3759659.8	70.0	3.50	4.00	1.63	YES	
L0001313	0	0.63870E-07	403389.5	3759652.4	70.0	3.50	4.00	1.63	YES	
L0001314	0	0.63870E-07	403393.8	3759644.9	70.1	3.50	4.00	1.63	YES	
L0001315	0	0.63870E-07	403398.1	3759637.4	70.4	3.50	4.00	1.63	YES	
L0001316	0	0.63870E-07	403402.4	3759630.0	70.4	3.50	4.00	1.63	YES	
L0001317	0	0.63870E-07	403406.6	3759622.5	70.3	3.50	4.00	1.63	YES	
L0001318	0	0.63870E-07	403410.9	3759615.1	70.2	3.50	4.00	1.63	YES	

L0001319	0	0.63870E-07	403415.2	3759607.6	70.1	3.50	4.00	1.63	YES
L0001320	0	0.63870E-07	403419.4	3759600.2	69.9	3.50	4.00	1.63	YES
L0001321	0	0.63870E-07	403423.7	3759592.7	69.8	3.50	4.00	1.63	YES
L0001322	0	0.63870E-07	403428.0	3759585.3	69.8	3.50	4.00	1.63	YES
L0001323	0	0.63870E-07	403432.2	3759577.8	69.7	3.50	4.00	1.63	YES
L0001324	0	0.63870E-07	403436.5	3759570.3	69.6	3.50	4.00	1.63	YES
L0001325	0	0.63870E-07	403440.8	3759562.9	69.5	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001326	0	0.63870E-07	403445.0	3759555.4	69.4	3.50	4.00	1.63	YES	
L0001327	0	0.63870E-07	403449.3	3759548.0	69.3	3.50	4.00	1.63	YES	
L0001328	0	0.63870E-07	403453.6	3759540.5	69.2	3.50	4.00	1.63	YES	
L0001329	0	0.63870E-07	403457.8	3759533.1	69.0	3.50	4.00	1.63	YES	
L0001330	0	0.63870E-07	403462.1	3759525.6	68.9	3.50	4.00	1.63	YES	
L0001331	0	0.63870E-07	403466.4	3759518.2	68.8	3.50	4.00	1.63	YES	
L0001332	0	0.63870E-07	403470.6	3759510.7	68.8	3.50	4.00	1.63	YES	
L0001333	0	0.63870E-07	403474.9	3759503.2	68.8	3.50	4.00	1.63	YES	
L0001334	0	0.63870E-07	403479.2	3759495.8	68.7	3.50	4.00	1.63	YES	
L0001335	0	0.63870E-07	403483.4	3759488.3	68.6	3.50	4.00	1.63	YES	
L0001336	0	0.63870E-07	403487.7	3759480.9	68.5	3.50	4.00	1.63	YES	
L0001337	0	0.63870E-07	403492.0	3759473.4	68.4	3.50	4.00	1.63	YES	
L0001338	0	0.63870E-07	403496.2	3759466.0	68.3	3.50	4.00	1.63	YES	
L0001339	0	0.63870E-07	403500.5	3759458.5	68.2	3.50	4.00	1.63	YES	
L0001340	0	0.63870E-07	403504.8	3759451.1	68.1	3.50	4.00	1.63	YES	
L0001341	0	0.63870E-07	403510.8	3759446.6	68.1	3.50	4.00	1.63	YES	
L0001342	0	0.63870E-07	403518.5	3759450.3	68.3	3.50	4.00	1.63	YES	
L0001343	0	0.12820E-08	403529.0	3759452.0	68.5	3.50	4.00	1.63	YES	
L0001344	0	0.12820E-08	403533.3	3759444.6	68.4	3.50	4.00	1.63	YES	
L0001345	0	0.12820E-08	403537.5	3759437.1	68.3	3.50	4.00	1.63	YES	
L0001346	0	0.12820E-08	403541.8	3759429.7	68.2	3.50	4.00	1.63	YES	
L0001347	0	0.12820E-08	403546.1	3759422.2	68.1	3.50	4.00	1.63	YES	
L0001348	0	0.12820E-08	403550.4	3759414.8	68.0	3.50	4.00	1.63	YES	
L0001349	0	0.12820E-08	403554.7	3759407.4	67.9	3.50	4.00	1.63	YES	
L0001350	0	0.12820E-08	403559.0	3759399.9	67.9	3.50	4.00	1.63	YES	
L0001351	0	0.12820E-08	403563.3	3759392.5	67.9	3.50	4.00	1.63	YES	
L0001352	0	0.12820E-08	403567.7	3759385.1	67.8	3.50	4.00	1.63	YES	
L0001353	0	0.12820E-08	403572.0	3759377.7	67.7	3.50	4.00	1.63	YES	
L0001354	0	0.12820E-08	403576.4	3759370.3	67.5	3.50	4.00	1.63	YES	
L0001355	0	0.12820E-08	403580.7	3759362.9	67.4	3.50	4.00	1.63	YES	

L0001356	0	0.12820E-08	403585.1	3759355.5	67.3	3.50	4.00	1.63	YES
L0001357	0	0.12820E-08	403589.5	3759348.1	67.1	3.50	4.00	1.63	YES
L0001358	0	0.12820E-08	403593.8	3759340.7	66.9	3.50	4.00	1.63	YES
L0001359	0	0.12820E-08	403598.2	3759333.3	66.7	3.50	4.00	1.63	YES
L0001360	0	0.12820E-08	403602.6	3759325.9	66.5	3.50	4.00	1.63	YES
L0001361	0	0.12820E-08	403607.0	3759318.5	66.4	3.50	4.00	1.63	YES
L0001362	0	0.12820E-08	403611.4	3759311.1	66.3	3.50	4.00	1.63	YES
L0001363	0	0.12820E-08	403615.8	3759303.8	66.3	3.50	4.00	1.63	YES
L0001364	0	0.12820E-08	403620.2	3759296.4	66.2	3.50	4.00	1.63	YES
L0001365	0	0.12820E-08	403624.4	3759288.9	66.1	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001366	0	0.12820E-08	403628.7	3759281.4	65.9	3.50	4.00	1.63	YES	
L0001367	0	0.12820E-08	403632.9	3759274.0	65.9	3.50	4.00	1.63	YES	
L0001368	0	0.12820E-08	403637.2	3759266.5	65.8	3.50	4.00	1.63	YES	
L0001369	0	0.12820E-08	403641.4	3759259.0	65.7	3.50	4.00	1.63	YES	
L0001370	0	0.12820E-08	403645.7	3759251.6	65.5	3.50	4.00	1.63	YES	
L0001371	0	0.12820E-08	403649.9	3759244.1	65.4	3.50	4.00	1.63	YES	
L0001372	0	0.12820E-08	403654.2	3759236.6	65.2	3.50	4.00	1.63	YES	
L0001373	0	0.12820E-08	403658.4	3759229.2	65.1	3.50	4.00	1.63	YES	
L0001374	0	0.12820E-08	403662.7	3759221.7	65.0	3.50	4.00	1.63	YES	
L0001375	0	0.12820E-08	403667.0	3759214.3	65.1	3.50	4.00	1.63	YES	
L0001376	0	0.12820E-08	403671.4	3759206.9	65.2	3.50	4.00	1.63	YES	
L0001377	0	0.12820E-08	403675.8	3759199.5	65.3	3.50	4.00	1.63	YES	
L0001378	0	0.12820E-08	403680.2	3759192.2	65.3	3.50	4.00	1.63	YES	
L0001379	0	0.12820E-08	403684.6	3759184.8	65.2	3.50	4.00	1.63	YES	
L0001380	0	0.12820E-08	403689.1	3759177.4	65.1	3.50	4.00	1.63	YES	
L0001381	0	0.12820E-08	403693.6	3759170.1	65.0	3.50	4.00	1.63	YES	
L0001382	0	0.12820E-08	403697.8	3759162.7	65.0	3.50	4.00	1.63	YES	
L0001383	0	0.12820E-08	403700.4	3759154.5	64.9	3.50	4.00	1.63	YES	
L0001384	0	0.12820E-08	403700.3	3759146.1	64.8	3.50	4.00	1.63	YES	
L0001385	0	0.12820E-08	403696.3	3759138.5	64.6	3.50	4.00	1.63	YES	
L0001386	0	0.12820E-08	403689.5	3759133.2	64.3	3.50	4.00	1.63	YES	
L0001387	0	0.12820E-08	403681.5	3759131.4	64.0	3.50	4.00	1.63	YES	
L0001388	0	0.12820E-08	403672.9	3759131.1	63.8	3.50	4.00	1.63	YES	
L0001389	0	0.12820E-08	403664.3	3759130.8	63.5	3.50	4.00	1.63	YES	
L0001390	0	0.12820E-08	403655.8	3759130.2	63.3	3.50	4.00	1.63	YES	
L0001391	0	0.12820E-08	403647.2	3759129.4	63.0	3.50	4.00	1.63	YES	
L0001392	0	0.12820E-08	403638.7	3759128.6	62.7	3.50	4.00	1.63	YES	

L0001393	0	0.12820E-08	403630.2	3759127.3	62.3	3.50	4.00	1.63	YES
L0001394	0	0.12820E-08	403621.8	3759125.6	62.0	3.50	4.00	1.63	YES
L0001395	0	0.12820E-08	403613.3	3759124.0	61.7	3.50	4.00	1.63	YES
L0001396	0	0.12820E-08	403604.9	3759122.4	61.4	3.50	4.00	1.63	YES
L0001397	0	0.12820E-08	403596.5	3759120.7	61.1	3.50	4.00	1.63	YES
L0001398	0	0.12820E-08	403588.0	3759119.1	60.8	3.50	4.00	1.63	YES
L0001399	0	0.12820E-08	403579.6	3759117.5	60.6	3.50	4.00	1.63	YES
L0001400	0	0.12820E-08	403571.1	3759115.9	60.4	3.50	4.00	1.63	YES
L0001401	0	0.12820E-08	403562.7	3759114.2	60.3	3.50	4.00	1.63	YES
L0001402	0	0.12820E-08	403554.3	3759112.6	60.1	3.50	4.00	1.63	YES
L0001403	0	0.12820E-08	403545.8	3759111.0	60.0	3.50	4.00	1.63	YES
L0001404	0	0.12820E-08	403537.4	3759109.3	59.9	3.50	4.00	1.63	YES
L0001405	0	0.12820E-08	403529.0	3759107.7	59.7	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001406	0	0.12820E-08	403520.5	3759106.1	59.6	3.50	4.00	1.63	YES	
L0001407	0	0.12820E-08	403512.1	3759104.5	59.5	3.50	4.00	1.63	YES	
L0001408	0	0.12820E-08	403503.7	3759102.8	59.4	3.50	4.00	1.63	YES	
L0001409	0	0.12820E-08	403495.2	3759101.2	59.3	3.50	4.00	1.63	YES	
L0001410	0	0.12820E-08	403486.8	3759099.6	59.1	3.50	4.00	1.63	YES	
L0001411	0	0.12820E-08	403478.4	3759097.9	58.9	3.50	4.00	1.63	YES	
L0001412	0	0.12820E-08	403469.9	3759096.3	58.8	3.50	4.00	1.63	YES	
L0001413	0	0.12820E-08	403461.5	3759094.7	58.5	3.50	4.00	1.63	YES	
L0001414	0	0.12820E-08	403453.1	3759093.1	58.3	3.50	4.00	1.63	YES	
L0001415	0	0.12820E-08	403444.6	3759091.4	58.0	3.50	4.00	1.63	YES	
L0001416	0	0.12820E-08	403436.2	3759089.8	57.8	3.50	4.00	1.63	YES	
L0001417	0	0.12820E-08	403427.8	3759088.2	57.5	3.50	4.00	1.63	YES	
L0001418	0	0.12820E-08	403419.3	3759086.5	57.4	3.50	4.00	1.63	YES	
L0001419	0	0.12820E-08	403410.9	3759084.9	57.3	3.50	4.00	1.63	YES	
L0001420	0	0.12820E-08	403402.5	3759083.3	57.2	3.50	4.00	1.63	YES	
L0001421	0	0.12820E-08	403394.0	3759081.6	57.1	3.50	4.00	1.63	YES	
L0001422	0	0.12820E-08	403385.6	3759080.0	57.1	3.50	4.00	1.63	YES	
L0001423	0	0.12820E-08	403377.1	3759078.4	57.0	3.50	4.00	1.63	YES	
L0001424	0	0.12820E-08	403368.7	3759076.8	56.9	3.50	4.00	1.63	YES	
L0001425	0	0.12820E-08	403360.3	3759075.1	56.9	3.50	4.00	1.63	YES	
L0001426	0	0.12820E-08	403351.8	3759073.5	56.8	3.50	4.00	1.63	YES	
L0001427	0	0.12820E-08	403343.4	3759071.9	56.8	3.50	4.00	1.63	YES	
L0001428	0	0.12820E-08	403335.0	3759070.2	56.7	3.50	4.00	1.63	YES	
L0001429	0	0.12820E-08	403326.5	3759068.6	56.6	3.50	4.00	1.63	YES	

L0001430	0	0.12820E-08	403318.1	3759067.0	56.6	3.50	4.00	1.63	YES
L0001431	0	0.12820E-08	403309.7	3759065.4	56.4	3.50	4.00	1.63	YES
L0001432	0	0.12820E-08	403301.2	3759063.7	56.2	3.50	4.00	1.63	YES
L0001433	0	0.12820E-08	403292.8	3759062.1	56.0	3.50	4.00	1.63	YES
L0001434	0	0.12820E-08	403284.4	3759060.5	55.7	3.50	4.00	1.63	YES
L0001435	0	0.12820E-08	403275.9	3759058.8	55.4	3.50	4.00	1.63	YES
L0001436	0	0.12820E-08	403267.5	3759057.2	55.1	3.50	4.00	1.63	YES
L0001437	0	0.12820E-08	403259.1	3759055.6	54.9	3.50	4.00	1.63	YES
L0001438	0	0.12820E-08	403250.6	3759053.9	54.8	3.50	4.00	1.63	YES
L0001439	0	0.12820E-08	403242.2	3759052.3	54.5	3.50	4.00	1.63	YES
L0001440	0	0.12820E-08	403233.8	3759050.7	54.5	3.50	4.00	1.63	YES
L0001441	0	0.12820E-08	403225.3	3759049.1	54.5	3.50	4.00	1.63	YES
L0001442	0	0.12820E-08	403216.9	3759047.4	54.4	3.50	4.00	1.63	YES
L0001443	0	0.12820E-08	403208.5	3759045.8	54.2	3.50	4.00	1.63	YES
L0001444	0	0.12820E-08	403200.0	3759044.2	54.0	3.50	4.00	1.63	YES
L0001445	0	0.12820E-08	403191.6	3759042.5	53.8	3.50	4.00	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001446	0	0.12820E-08	403183.1	3759040.9	53.5	3.50	4.00	1.63	YES	
L0001447	0	0.12820E-08	403174.7	3759039.3	53.3	3.50	4.00	1.63	YES	
L0001448	0	0.12820E-08	403166.3	3759037.7	53.0	3.50	4.00	1.63	YES	
L0001449	0	0.12820E-08	403157.8	3759036.0	52.8	3.50	4.00	1.63	YES	
L0001450	0	0.12820E-08	403149.4	3759034.4	52.6	3.50	4.00	1.63	YES	
L0001451	0	0.12820E-08	403141.0	3759032.8	52.4	3.50	4.00	1.63	YES	
L0001452	0	0.12820E-08	403132.5	3759031.1	52.2	3.50	4.00	1.63	YES	
L0001453	0	0.38110E-07	403545.9	3759463.3	69.3	3.50	4.70	1.63	YES	
L0001454	0	0.38110E-07	403545.8	3759471.8	69.5	3.50	4.70	1.63	YES	
L0001455	0	0.38110E-07	403542.3	3759481.3	69.7	3.50	4.70	1.63	YES	
L0001456	0	0.38110E-07	403538.2	3759490.5	69.9	3.50	4.70	1.63	YES	
L0001457	0	0.38110E-07	403533.2	3759499.3	70.1	3.50	4.70	1.63	YES	
L0001458	0	0.38110E-07	403528.2	3759508.1	70.2	3.50	4.70	1.63	YES	
L0001459	0	0.38110E-07	403523.1	3759516.9	70.1	3.50	4.70	1.63	YES	
L0001460	0	0.38110E-07	403518.1	3759525.6	70.3	3.50	4.70	1.63	YES	
L0001461	0	0.38110E-07	403513.1	3759534.4	70.5	3.50	4.70	1.63	YES	
L0001462	0	0.38110E-07	403508.1	3759543.2	70.8	3.50	4.70	1.63	YES	
L0001463	0	0.38110E-07	403503.0	3759552.0	71.1	3.50	4.70	1.63	YES	
L0001464	0	0.38110E-07	403498.0	3759560.8	71.1	3.50	4.70	1.63	YES	
L0001465	0	0.38110E-07	403493.0	3759569.5	71.0	3.50	4.70	1.63	YES	
L0001466	0	0.38110E-07	403488.0	3759578.3	71.0	3.50	4.70	1.63	YES	

L0001467	0	0.38110E-07	403483.0	3759587.1	71.0	3.50	4.70	1.63	YES
L0001468	0	0.38110E-07	403478.0	3759595.9	71.1	3.50	4.70	1.63	YES
L0001469	0	0.38110E-07	403473.0	3759604.7	71.2	3.50	4.70	1.63	YES
L0001470	0	0.38110E-07	403468.0	3759613.5	71.4	3.50	4.70	1.63	YES
L0001471	0	0.38110E-07	403463.0	3759622.3	71.6	3.50	4.70	1.63	YES
L0001472	0	0.38110E-07	403458.0	3759631.1	71.8	3.50	4.70	1.63	YES
L0001473	0	0.38110E-07	403453.0	3759639.9	71.8	3.50	4.70	1.63	YES
L0001474	0	0.38110E-07	403447.6	3759648.4	71.9	3.50	4.70	1.63	YES
L0001475	0	0.38110E-07	403442.1	3759657.0	71.9	3.50	4.70	1.63	YES
L0001476	0	0.38110E-07	403436.7	3759665.5	72.0	3.50	4.70	1.63	YES
L0001477	0	0.38110E-07	403431.3	3759674.0	72.2	3.50	4.70	1.63	YES
L0001478	0	0.38110E-07	403425.8	3759682.6	72.3	3.50	4.70	1.63	YES
L0001479	0	0.38110E-07	403420.4	3759691.1	72.3	3.50	4.70	1.63	YES
L0001480	0	0.38110E-07	403415.0	3759699.6	72.3	3.50	4.70	1.63	YES
L0001481	0	0.38110E-07	403409.6	3759708.2	72.4	3.50	4.70	1.63	YES
L0001482	0	0.38110E-07	403404.1	3759716.7	72.5	3.50	4.70	1.63	YES
L0001483	0	0.38110E-07	403398.7	3759725.2	72.5	3.50	4.70	1.63	YES
L0001484	0	0.38110E-07	403393.6	3759733.9	72.5	3.50	4.70	1.63	YES
L0001485	0	0.38110E-07	403388.4	3759742.7	72.4	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001486	0	0.38110E-07	403383.3	3759751.4	72.4	3.50	4.70	1.63	YES	
L0001487	0	0.38110E-07	403378.1	3759760.1	72.3	3.50	4.70	1.63	YES	
L0001488	0	0.38110E-07	403373.0	3759768.8	72.2	3.50	4.70	1.63	YES	
L0001489	0	0.38110E-07	403367.8	3759777.5	72.1	3.50	4.70	1.63	YES	
L0001490	0	0.38110E-07	403362.7	3759786.2	72.1	3.50	4.70	1.63	YES	
L0001491	0	0.38110E-07	403357.5	3759794.9	72.0	3.50	4.70	1.63	YES	
L0001492	0	0.38110E-07	403352.4	3759803.6	72.0	3.50	4.70	1.63	YES	
L0001493	0	0.38110E-07	403347.2	3759812.3	72.0	3.50	4.70	1.63	YES	
L0001494	0	0.38110E-07	403342.1	3759821.0	71.9	3.50	4.70	1.63	YES	
L0001495	0	0.38110E-07	403337.0	3759829.7	71.9	3.50	4.70	1.63	YES	
L0001496	0	0.38110E-07	403331.8	3759838.4	71.8	3.50	4.70	1.63	YES	
L0001497	0	0.38110E-07	403326.7	3759847.1	71.8	3.50	4.70	1.63	YES	
L0001498	0	0.38110E-07	403321.5	3759855.8	71.7	3.50	4.70	1.63	YES	
L0001499	0	0.38110E-07	403316.4	3759864.6	71.7	3.50	4.70	1.63	YES	
L0001500	0	0.38110E-07	403311.2	3759873.3	71.5	3.50	4.70	1.63	YES	
L0001501	0	0.38110E-07	403306.1	3759882.0	71.4	3.50	4.70	1.63	YES	
L0001502	0	0.38110E-07	403300.9	3759890.7	71.4	3.50	4.70	1.63	YES	
L0001503	0	0.38110E-07	403295.8	3759899.4	71.3	3.50	4.70	1.63	YES	

L0001504	0	0.38110E-07	403290.6	3759908.1	71.3	3.50	4.70	1.63	YES
L0001505	0	0.38110E-07	403285.5	3759916.8	71.3	3.50	4.70	1.63	YES
L0001506	0	0.38110E-07	403280.3	3759925.5	71.2	3.50	4.70	1.63	YES
L0001507	0	0.38110E-07	403275.2	3759934.2	71.2	3.50	4.70	1.63	YES
L0001508	0	0.38110E-07	403270.0	3759942.9	71.2	3.50	4.70	1.63	YES
L0001509	0	0.38110E-07	403264.9	3759951.6	71.2	3.50	4.70	1.63	YES
L0001510	0	0.38110E-07	403259.7	3759960.3	71.1	3.50	4.70	1.63	YES
L0001511	0	0.38110E-07	403254.6	3759969.0	71.0	3.50	4.70	1.63	YES
L0001512	0	0.38110E-07	403249.4	3759977.7	71.0	3.50	4.70	1.63	YES
L0001513	0	0.38110E-07	403244.3	3759986.5	71.0	3.50	4.70	1.63	YES
L0001514	0	0.38110E-07	403239.2	3759995.2	70.9	3.50	4.70	1.63	YES
L0001515	0	0.38110E-07	403234.0	3760003.9	70.9	3.50	4.70	1.63	YES
L0001516	0	0.38110E-07	403228.9	3760012.6	70.8	3.50	4.70	1.63	YES
L0001517	0	0.38110E-07	403223.7	3760021.3	70.8	3.50	4.70	1.63	YES
L0001518	0	0.38110E-07	403218.6	3760030.0	70.8	3.50	4.70	1.63	YES
L0001519	0	0.38110E-07	403213.4	3760038.7	70.7	3.50	4.70	1.63	YES
L0001520	0	0.38110E-07	403208.3	3760047.4	70.6	3.50	4.70	1.63	YES
L0001521	0	0.38110E-07	403203.1	3760056.1	70.5	3.50	4.70	1.63	YES
L0001522	0	0.38110E-07	403198.0	3760064.8	70.5	3.50	4.70	1.63	YES
L0001523	0	0.38110E-07	403192.8	3760073.5	70.5	3.50	4.70	1.63	YES
L0001524	0	0.38110E-07	403187.7	3760082.2	70.5	3.50	4.70	1.63	YES
L0001525	0	0.38110E-07	403182.5	3760090.9	70.5	3.50	4.70	1.63	YES

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0001526	0	0.38110E-07	403177.4	3760099.6	70.4	3.50	4.70	1.63	YES	
L0001527	0	0.38110E-07	403172.2	3760108.4	70.4	3.50	4.70	1.63	YES	
L0001528	0	0.38110E-07	403167.1	3760117.1	70.5	3.50	4.70	1.63	YES	
L0001529	0	0.38110E-07	403161.9	3760125.8	70.5	3.50	4.70	1.63	YES	
L0001530	0	0.38110E-07	403156.8	3760134.5	70.4	3.50	4.70	1.63	YES	
L0001531	0	0.38110E-07	403151.6	3760143.2	70.3	3.50	4.70	1.63	YES	
L0001532	0	0.38110E-07	403146.5	3760151.9	70.3	3.50	4.70	1.63	YES	
L0001533	0	0.38110E-07	403141.3	3760160.6	70.3	3.50	4.70	1.63	YES	
L0001534	0	0.38110E-07	403136.2	3760169.3	70.3	3.50	4.70	1.63	YES	
L0001535	0	0.38110E-07	403131.1	3760178.0	70.2	3.50	4.70	1.63	YES	
L0001536	0	0.38110E-07	403125.9	3760186.7	70.1	3.50	4.70	1.63	YES	
L0001537	0	0.38110E-07	403120.8	3760195.4	70.0	3.50	4.70	1.63	YES	
L0001538	0	0.38110E-07	403115.6	3760204.1	70.0	3.50	4.70	1.63	YES	
L0001539	0	0.38110E-07	403110.5	3760212.8	70.1	3.50	4.70	1.63	YES	
L0001540	0	0.38110E-07	403105.3	3760221.5	70.1	3.50	4.70	1.63	YES	

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L0001541         0   0.38110E-07  403100.2 3760230.3    70.2     3.50     4.70     1.63     YES
L0001542         0   0.38110E-07  403095.0 3760239.0    70.2     3.50     4.70     1.63     YES
L0001543         0   0.38110E-07  403089.9 3760247.7    70.3     3.50     4.70     1.63     YES
L0001544         0   0.38110E-07  403084.7 3760256.4    70.4     3.50     4.70     1.63     YES
L0001545         0   0.38110E-07  403079.6 3760265.1    70.4     3.50     4.70     1.63     YES
L0001546         0   0.38110E-07  403074.4 3760273.8    70.5     3.50     4.70     1.63     YES
L0001547         0   0.38110E-07  403069.3 3760282.5    70.7     3.50     4.70     1.63     YES
L0001548         0   0.38110E-07  403064.1 3760291.2    70.9     3.50     4.70     1.63     YES
L0001549         0   0.38110E-07  403059.0 3760299.9    71.0     3.50     4.70     1.63     YES
L0001550         0   0.38110E-07  403053.8 3760308.6    71.2     3.50     4.70     1.63     YES
L0001551         0   0.38110E-07  403048.7 3760317.3    71.3     3.50     4.70     1.63     YES
L0001552         0   0.38110E-07  403043.5 3760326.0    71.4     3.50     4.70     1.63     YES
L0001553         0   0.38110E-07  403038.4 3760334.7    71.2     3.50     4.70     1.63     YES
L0001554         0   0.38110E-07  403033.3 3760343.4    71.1     3.50     4.70     1.63     YES
L0001555         0   0.38110E-07  403028.1 3760352.1    71.0     3.50     4.70     1.63     YES
L0001556         0   0.38110E-07  403023.0 3760360.9    70.9     3.50     4.70     1.63     YES
L0001557         0   0.38110E-07  403017.8 3760369.6    71.0     3.50     4.70     1.63     YES
L0001558         0   0.38110E-07  403012.7 3760378.3    71.1     3.50     4.70     1.63     YES

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                    ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                     ***        19:44:58
                                                                                                          PAGE  10
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                          SOURCE IDs
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 ALL        STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , L0001286    , L0001287    , L0001288    ,
            L0001289    , L0001290    , L0001291    , L0001292    , L0001293    , L0001294    , L0001295    , L0001296    ,
            L0001297    , L0001298    , L0001299    , L0001300    , L0001301    , L0001302    , L0001303    , L0001304    ,
            L0001305    , L0001306    , L0001307    , L0001308    , L0001309    , L0001310    , L0001311    , L0001312    ,
            L0001313    , L0001314    , L0001315    , L0001316    , L0001317    , L0001318    , L0001319    , L0001320    ,
            L0001321    , L0001322    , L0001323    , L0001324    , L0001325    , L0001326    , L0001327    , L0001328    ,
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            L0001337    , L0001338    , L0001339    , L0001340    , L0001341    , L0001342    , L0001343    , L0001344    ,
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            L0001353    , L0001354    , L0001355    , L0001356    , L0001357    , L0001358    , L0001359    , L0001360    ,
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L0001393 , L0001394 , L0001395 , L0001396 , L0001397 , L0001398 , L0001399 , L0001400 ,

L0001401 , L0001402 , L0001403 , L0001404 , L0001405 , L0001406 , L0001407 , L0001408 ,

L0001409 , L0001410 , L0001411 , L0001412 , L0001413 , L0001414 , L0001415 , L0001416 ,

L0001417 , L0001418 , L0001419 , L0001420 , L0001421 , L0001422 , L0001423 , L0001424 ,

L0001425 , L0001426 , L0001427 , L0001428 , L0001429 , L0001430 , L0001431 , L0001432 ,

L0001433 , L0001434 , L0001435 , L0001436 , L0001437 , L0001438 , L0001439 , L0001440 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

L0001441 , L0001442 , L0001443 , L0001444 , L0001445 , L0001446 , L0001447 , L0001448 ,

L0001449 , L0001450 , L0001451 , L0001452 , L0001453 , L0001454 , L0001455 , L0001456 ,

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L0001465 , L0001466 , L0001467 , L0001468 , L0001469 , L0001470 , L0001471 , L0001472 ,

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L0001513 , L0001514 , L0001515 , L0001516 , L0001517 , L0001518 , L0001519 , L0001520 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	9818605.	STCK1 , STCK2 , STCK3 , STCK4 , STCK5 , L0001286 , L0001287 , L0001288 ,
		L0001289 , L0001290 , L0001291 , L0001292 , L0001293 , L0001294 , L0001295 , L0001296 ,
		L0001297 , L0001298 , L0001299 , L0001300 , L0001301 , L0001302 , L0001303 , L0001304 ,
		L0001305 , L0001306 , L0001307 , L0001308 , L0001309 , L0001310 , L0001311 , L0001312 ,
		L0001313 , L0001314 , L0001315 , L0001316 , L0001317 , L0001318 , L0001319 , L0001320 ,
		L0001321 , L0001322 , L0001323 , L0001324 , L0001325 , L0001326 , L0001327 , L0001328 ,
		L0001329 , L0001330 , L0001331 , L0001332 , L0001333 , L0001334 , L0001335 , L0001336 ,
		L0001337 , L0001338 , L0001339 , L0001340 , L0001341 , L0001342 , L0001343 , L0001344 ,
		L0001345 , L0001346 , L0001347 , L0001348 , L0001349 , L0001350 , L0001351 , L0001352 ,
		L0001353 , L0001354 , L0001355 , L0001356 , L0001357 , L0001358 , L0001359 , L0001360 ,
		L0001361 , L0001362 , L0001363 , L0001364 , L0001365 , L0001366 , L0001367 , L0001368 ,
		L0001369 , L0001370 , L0001371 , L0001372 , L0001373 , L0001374 , L0001375 , L0001376 ,
		L0001377 , L0001378 , L0001379 , L0001380 , L0001381 , L0001382 , L0001383 , L0001384 ,
		L0001385 , L0001386 , L0001387 , L0001388 , L0001389 , L0001390 , L0001391 , L0001392 ,
		L0001521 , L0001522 , L0001523 , L0001524 , L0001525 , L0001526 , L0001527 , L0001528 ,
		L0001529 , L0001530 , L0001531 , L0001532 , L0001533 , L0001534 , L0001535 , L0001536 ,
		L0001537 , L0001538 , L0001539 , L0001540 , L0001541 , L0001542 , L0001543 , L0001544 ,
		L0001545 , L0001546 , L0001547 , L0001548 , L0001549 , L0001550 , L0001551 , L0001552 ,
		L0001553 , L0001554 , L0001555 , L0001556 , L0001557 , L0001558 ,

L0001393 , L0001394 , L0001395 , L0001396 , L0001397 , L0001398 , L0001399 , L0001400 ,

L0001401 , L0001402 , L0001403 , L0001404 , L0001405 , L0001406 , L0001407 , L0001408 ,

L0001409 , L0001410 , L0001411 , L0001412 , L0001413 , L0001414 , L0001415 , L0001416 ,

L0001417 , L0001418 , L0001419 , L0001420 , L0001421 , L0001422 , L0001423 , L0001424 ,

L0001425 , L0001426 , L0001427 , L0001428 , L0001429 , L0001430 , L0001431 , L0001432 ,

L0001433 , L0001434 , L0001435 , L0001436 , L0001437 , L0001438 , L0001439 , L0001440 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

L0001441 , L0001442 , L0001443 , L0001444 , L0001445 , L0001446 , L0001447 , L0001448 ,

L0001449 , L0001450 , L0001451 , L0001452 , L0001453 , L0001454 , L0001455 , L0001456 ,

L0001457 , L0001458 , L0001459 , L0001460 , L0001461 , L0001462 , L0001463 , L0001464 ,

L0001465 , L0001466 , L0001467 , L0001468 , L0001469 , L0001470 , L0001471 , L0001472 ,

L0001473 , L0001474 , L0001475 , L0001476 , L0001477 , L0001478 , L0001479 , L0001480 ,

L0001481 , L0001482 , L0001483 , L0001484 , L0001485 , L0001486 , L0001487 , L0001488 ,

L0001489 , L0001490 , L0001491 , L0001492 , L0001493 , L0001494 , L0001495 , L0001496 ,

L0001497 , L0001498 , L0001499 , L0001500 , L0001501 , L0001502 , L0001503 , L0001504 ,

L0001505 , L0001506 , L0001507 , L0001508 , L0001509 , L0001510 , L0001511 , L0001512 ,

L0001513 , L0001514 , L0001515 , L0001516 , L0001517 , L0001518 , L0001519 , L0001520 ,

L0001521 , L0001522 , L0001523 , L0001524 , L0001525 , L0001526 , L0001527 , L0001528 ,

L0001529 , L0001530 , L0001531 , L0001532 , L0001533 , L0001534 , L0001535 , L0001536 ,

L0001537 , L0001538 , L0001539 , L0001540 , L0001541 , L0001542 , L0001543 , L0001544 ,

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-18.6,	-35.5,	2	10.7,	215.2,	250.1,	-25.0,	-15.0,
3	10.7,	198.7,	259.2,	-30.8,	5.5,	4	10.7,	178.8,	260.5,	-35.5,	24.6,
5	10.7,	153.4,	253.9,	-39.2,	42.8,	6	10.7,	124.1,	243.3,	-42.0,	59.5,
7	10.7,	147.9,	246.9,	-50.2,	77.4,	8	10.7,	182.2,	243.0,	-56.8,	87.0,
9	10.7,	211.0,	231.7,	-61.8,	94.0,	10	10.7,	233.4,	226.0,	-77.5,	98.1,
11	10.7,	250.1,	215.2,	-92.6,	100.0,	12	10.7,	259.2,	198.7,	-104.8,	98.9,
13	10.7,	260.5,	178.8,	-113.9,	94.7,	14	10.7,	253.9,	153.4,	-119.5,	87.7,
15	10.7,	243.3,	124.1,	-121.5,	79.7,	16	10.7,	246.9,	147.9,	-151.3,	73.3,
17	10.7,	243.0,	182.2,	-178.1,	64.6,	18	10.7,	231.7,	211.0,	-199.5,	54.1,
19	10.7,	226.0,	233.4,	-214.8,	35.5,	20	10.7,	215.2,	250.1,	-225.1,	15.0,
21	10.7,	198.7,	259.2,	-228.5,	-5.5,	22	10.7,	178.8,	260.5,	-225.0,	-24.6,
23	10.7,	153.4,	253.9,	-214.6,	-42.8,	24	10.7,	124.1,	243.3,	-201.3,	-59.5,
25	10.7,	147.9,	246.9,	-196.7,	-77.4,	26	10.7,	182.2,	243.0,	-186.1,	-87.0,
27	10.7,	211.0,	231.7,	-169.9,	-94.0,	28	10.7,	233.4,	226.0,	-148.5,	-98.1,
29	10.7,	250.1,	215.2,	-122.6,	-100.0,	30	10.7,	259.2,	198.7,	-93.8,	-98.9,
31	10.7,	260.5,	178.8,	-64.8,	-94.7,	32	10.7,	253.9,	153.4,	-33.9,	-87.7,
33	10.7,	243.3,	124.1,	-2.6,	-79.7,	34	10.7,	246.9,	147.9,	3.4,	-73.3,
35	10.7,	243.0,	182.2,	-4.1,	-64.6,	36	10.7,	231.7,	211.0,	-11.5,	-54.1,

SOURCE ID: STCK2

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-61.8,	20.2,	2	10.7,	215.2,	250.1,	-77.3,	32.4,
3	10.7,	198.7,	259.2,	-90.5,	43.1,	4	10.7,	178.8,	260.5,	-100.9,	51.2,
5	10.7,	153.4,	253.9,	-108.2,	57.7,	6	10.7,	124.1,	243.3,	-112.5,	62.1,
7	10.7,	147.9,	246.9,	-120.1,	67.7,	8	10.7,	182.2,	243.0,	-124.0,	65.4,
9	10.7,	211.0,	231.7,	-124.2,	61.0,	10	10.7,	233.4,	226.0,	-133.2,	54.8,
11	10.7,	250.1,	215.2,	-140.0,	47.7,	12	10.7,	259.2,	198.7,	-142.4,	39.1,
13	10.7,	260.5,	178.8,	-140.6,	29.4,	14	10.7,	253.9,	153.4,	-134.4,	18.7,
15	10.7,	243.3,	124.1,	-124.2,	9.1,	16	10.7,	246.9,	147.9,	-141.7,	3.3,
17	10.7,	243.0,	182.2,	-156.5,	-2.5,	18	10.7,	231.7,	211.0,	-166.5,	-8.3,
19	10.7,	226.0,	233.4,	-171.5,	-20.2,	20	10.7,	215.2,	250.1,	-172.8,	-32.4,
21	10.7,	198.7,	259.2,	-168.7,	-43.1,	22	10.7,	178.8,	260.5,	-159.6,	-51.2,
23	10.7,	153.4,	253.9,	-145.6,	-57.7,	24	10.7,	124.1,	243.3,	-130.8,	-62.1,
25	10.7,	147.9,	246.9,	-126.8,	-67.7,	26	10.7,	182.2,	243.0,	-118.9,	-65.4,
27	10.7,	211.0,	231.7,	-107.5,	-61.0,	28	10.7,	233.4,	226.0,	-92.8,	-54.8,
29	10.7,	250.1,	215.2,	-75.2,	-47.7,	30	10.7,	259.2,	198.7,	-56.3,	-39.1,

31	10.7,	260.5,	178.8,	-38.2,	-29.4,	32	10.7,	253.9,	153.4,	-19.0,	-18.7,
33	10.7,	243.3,	124.1,	0.1,	-9.1,	34	10.7,	246.9,	147.9,	-6.2,	-3.3,
35	10.7,	243.0,	182.2,	-25.7,	2.5,	36	10.7,	231.7,	211.0,	-44.5,	8.3,

SOURCE ID: STCK3

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-31.6,	-16.6,	2	10.7,	215.2,	250.1,	-41.2,	1.4,
3	10.7,	198.7,	259.2,	-49.5,	18.8,	4	10.7,	178.8,	260.5,	-56.3,	34.4,
5	10.7,	153.4,	253.9,	-61.4,	49.0,	6	10.7,	124.1,	243.3,	-64.9,	61.6,
7	10.7,	147.9,	246.9,	-73.1,	75.5,	8	10.7,	182.2,	243.0,	-79.1,	81.2,
9	10.7,	211.0,	231.7,	-82.7,	84.4,	10	10.7,	233.4,	226.0,	-96.4,	85.1,
11	10.7,	250.1,	215.2,	-109.0,	83.9,	12	10.7,	259.2,	198.7,	-118.2,	80.1,
13	10.7,	260.5,	178.8,	-123.8,	73.9,	14	10.7,	253.9,	153.4,	-125.7,	65.5,
15	10.7,	243.3,	124.1,	-123.7,	56.8,	16	10.7,	246.9,	147.9,	-149.5,	50.3,
17	10.7,	243.0,	182.2,	-172.3,	42.4,	18	10.7,	231.7,	211.0,	-189.9,	33.1,
19	10.7,	226.0,	233.4,	-201.8,	16.6,	20	10.7,	215.2,	250.1,	-208.9,	-1.4,
21	10.7,	198.7,	259.2,	-209.8,	-18.8,	22	10.7,	178.8,	260.5,	-204.2,	-34.4,
23	10.7,	153.4,	253.9,	-192.4,	-49.0,	24	10.7,	124.1,	243.3,	-178.4,	-61.6,
25	10.7,	147.9,	246.9,	-173.8,	-75.5,	26	10.7,	182.2,	243.0,	-163.9,	-81.2,
27	10.7,	211.0,	231.7,	-149.0,	-84.4,	28	10.7,	233.4,	226.0,	-129.6,	-85.1,
29	10.7,	250.1,	215.2,	-106.2,	-83.9,	30	10.7,	259.2,	198.7,	-80.5,	-80.1,
31	10.7,	260.5,	178.8,	-55.0,	-73.9,	32	10.7,	253.9,	153.4,	-27.8,	-65.5,
33	10.7,	243.3,	124.1,	-0.4,	-56.8,	34	10.7,	246.9,	147.9,	1.6,	-50.3,
35	10.7,	243.0,	182.2,	-9.9,	-42.4,	36	10.7,	231.7,	211.0,	-21.1,	-33.1,

SOURCE ID: STCK4

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-84.8,	46.1,	2	10.7,	215.2,	250.1,	-104.4,	53.8,
3	10.7,	198.7,	259.2,	-120.9,	59.5,	4	10.7,	178.8,	260.5,	-133.7,	62.1,
5	10.7,	153.4,	253.9,	-142.4,	62.8,	6	10.7,	124.1,	243.3,	-147.0,	61.2,
7	10.7,	147.9,	246.9,	-153.9,	60.8,	8	10.7,	182.2,	243.0,	-156.1,	52.7,
9	10.7,	211.0,	231.7,	-153.6,	42.9,	10	10.7,	233.4,	226.0,	-159.1,	31.9,
11	10.7,	250.1,	215.2,	-161.4,	20.6,	12	10.7,	259.2,	198.7,	-158.9,	8.7,
13	10.7,	260.5,	178.8,	-151.5,	-3.4,	14	10.7,	253.9,	153.4,	-139.5,	-15.5,
15	10.7,	243.3,	124.1,	-123.2,	-25.4,	16	10.7,	246.9,	147.9,	-134.7,	-30.5,
17	10.7,	243.0,	182.2,	-143.8,	-34.6,	18	10.7,	231.7,	211.0,	-148.4,	-37.8,
19	10.7,	226.0,	233.4,	-148.6,	-46.1,	20	10.7,	215.2,	250.1,	-145.7,	-53.8,
21	10.7,	198.7,	259.2,	-138.4,	-59.5,	22	10.7,	178.8,	260.5,	-126.8,	-62.1,
23	10.7,	153.4,	253.9,	-111.5,	-62.8,	24	10.7,	124.1,	243.3,	-96.2,	-61.2,
25	10.7,	147.9,	246.9,	-93.0,	-60.8,	26	10.7,	182.2,	243.0,	-86.8,	-52.7,
27	10.7,	211.0,	231.7,	-78.1,	-42.9,	28	10.7,	233.4,	226.0,	-66.9,	-31.9,
29	10.7,	250.1,	215.2,	-53.8,	-20.6,	30	10.7,	259.2,	198.7,	-39.8,	-8.7,
31	10.7,	260.5,	178.8,	-27.3,	3.4,	32	10.7,	253.9,	153.4,	-14.0,	15.5,
33	10.7,	243.3,	124.1,	-0.9,	25.4,	34	10.7,	246.9,	147.9,	-13.2,	30.5,
35	10.7,	243.0,	182.2,	-38.4,	34.6,	36	10.7,	231.7,	211.0,	-62.6,	37.8,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK5

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	10.7,	226.0,	233.4,	-97.0,	85.0,	2	10.7,	215.2,	250.1,	-123.2,	90.0,
3	10.7,	198.7,	259.2,	-145.7,	91.8,	4	10.7,	178.8,	260.5,	-163.7,	89.6,
5	0.0,	0.0,	0.0,	0.0,	0.0,	6	0.0,	0.0,	0.0,	0.0,	0.0,
7	10.7,	147.9,	246.9,	-193.7,	69.6,	8	10.7,	182.2,	243.0,	-196.9,	54.4,
9	10.7,	211.0,	231.7,	-194.0,	37.6,	10	10.7,	233.4,	226.0,	-198.0,	19.7,
11	10.7,	250.1,	215.2,	-197.6,	1.8,	12	10.7,	259.2,	198.7,	-191.2,	-16.1,
13	10.7,	260.5,	178.8,	-179.0,	-33.5,	14	10.7,	253.9,	153.4,	-161.4,	-49.9,
15	10.7,	243.3,	124.1,	-138.8,	-63.1,	16	10.7,	246.9,	147.9,	-143.6,	-70.3,
17	10.7,	243.0,	182.2,	-145.6,	-75.4,	18	10.7,	231.7,	211.0,	-143.1,	-78.2,
19	10.7,	226.0,	233.4,	-136.3,	-85.0,	20	10.7,	215.2,	250.1,	-126.9,	-90.0,
21	10.7,	198.7,	259.2,	-113.5,	-91.8,	22	10.7,	178.8,	260.5,	-96.8,	-89.6,
23	0.0,	0.0,	0.0,	0.0,	0.0,	24	0.0,	0.0,	0.0,	0.0,	0.0,
25	10.7,	147.9,	246.9,	-53.1,	-69.6,	26	10.7,	182.2,	243.0,	-46.1,	-54.4,
27	10.7,	211.0,	231.7,	-37.6,	-37.6,	28	10.7,	233.4,	226.0,	-28.1,	-19.7,
29	10.7,	250.1,	215.2,	-17.6,	-1.8,	30	10.7,	259.2,	198.7,	-7.5,	16.1,
31	10.7,	260.5,	178.8,	0.2,	33.5,	32	10.7,	253.9,	153.4,	8.0,	49.9,
33	10.7,	243.3,	124.1,	14.7,	63.1,	34	10.7,	246.9,	147.9,	-4.3,	70.3,
35	10.7,	243.0,	182.2,	-36.7,	75.4,	36	10.7,	231.7,	211.0,	-67.9,	78.2,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

402680.3, 402746.2, 402812.2, 402878.1, 402944.0, 403010.0, 403075.9, 403141.8, 403207.8, 403273.7,
403339.6, 403405.5, 403471.5, 403537.4, 403603.3, 403669.3, 403735.2, 403801.1, 403867.1, 403933.0,
403998.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3759000.9, 3759070.5, 3759140.2, 3759209.8, 3759279.4, 3759349.0, 3759418.7, 3759488.3, 3759557.9, 3759627.6,
3759697.2, 3759766.8, 3759836.5, 3759906.1, 3759975.7, 3760045.4, 3760115.0, 3760184.6, 3760254.2, 3760323.9,
3760393.5,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	65.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	56.20	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	59.50
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	55.00	55.10	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	78.20	79.70	82.10	84.30	85.20	87.50	88.10	90.20	92.90
3760323.87	76.50	78.70	80.70	82.30	83.80	84.90	86.10	88.80	90.70
3760254.24	75.30	77.80	78.80	80.80	82.10	83.20	84.90	87.20	89.70

3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	84.00	86.10	88.20
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	87.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	66.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	94.90	97.60	99.60
3760323.87	92.60	95.30	97.80
3760254.24	91.60	94.30	96.20
3760184.61	91.00	92.90	95.10
3760114.98	90.20	92.20	94.00
3760045.35	89.50	91.10	93.10
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40
3759279.42	69.70	70.80	72.20
3759209.79	68.20	69.70	71.50
3759140.16	67.40	68.50	70.00

3759070.53	66.00	67.90	69.10						
3759000.90	65.80	66.90	68.20						

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 402680.32	402746.25	402812.18	402878.11	402944.04	403009.97	403075.90	403141.83	403207.76
3760393.50	62.00	64.60	66.80	67.50	69.20	71.30	74.00	74.40	75.60
3760323.87	61.50	63.50	64.90	67.20	68.40	69.90	72.30	73.10	74.70
3760254.24	60.80	62.50	64.20	65.10	67.40	69.00	70.00	72.20	73.80
3760184.61	60.10	61.70	63.70	64.90	66.60	67.60	68.80	70.80	72.40
3760114.98	59.00	60.70	62.00	64.10	65.70	66.50	68.20	69.80	71.60
3760045.35	58.30	59.50	61.50	63.10	64.00	65.80	66.90	69.40	70.50
3759975.72	57.00	58.60	60.20	61.60	63.60	64.80	66.50	68.20	69.70
3759906.09	56.50	57.60	59.30	61.00	62.80	64.20	65.80	68.50	69.10
3759836.46	55.90	57.20	58.30	61.10	62.20	64.00	65.30	67.60	68.60
3759766.83	55.30	56.70	58.00	59.60	61.70	63.40	64.80	66.60	68.00
3759697.20	54.80	56.00	57.50	59.10	60.10	62.60	64.20	66.70	67.20
3759627.57	53.30	55.20	56.90	58.00	59.80	61.70	63.50	67.00	67.30
3759557.94	53.50	54.60	56.00	57.30	59.10	61.90	62.90	66.20	66.70
3759488.31	51.80	53.90	55.10	56.40	58.00	59.70	61.40	63.00	64.10
3759418.68	50.80	52.80	54.60	56.00	57.20	58.40	59.10	61.70	62.60
3759349.05	50.40	52.10	52.60	55.30	56.20	57.70	59.00	60.90	62.80
3759279.42	49.40	50.10	51.70	53.20	54.30	57.40	56.70	57.80	62.60
3759209.79	48.40	49.50	50.60	51.50	53.30	55.00	54.60	55.20	57.50
3759140.16	48.00	48.80	49.40	50.80	51.50	53.10	57.50	56.80	56.40
3759070.53	47.80	48.10	48.50	50.30	50.60	52.20	52.30	53.40	55.10
3759000.90	47.60	48.10	48.60	48.60	49.40	50.50	51.20	52.40	53.70

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13

3760393.50	78.20	79.70	82.10	324.50	361.90	361.90	361.90	361.90	361.90
3760323.87	76.50	78.70	80.70	82.30	324.50	361.90	361.90	361.90	361.90
3760254.24	75.30	77.80	78.80	80.80	82.10	324.70	324.70	361.90	361.90
3760184.61	74.00	76.90	77.40	79.20	80.60	81.90	324.50	324.70	336.70
3760114.98	73.70	75.60	76.50	77.90	79.80	81.70	83.80	85.40	323.90
3760045.35	72.90	74.20	75.90	77.00	79.10	81.80	83.40	85.10	87.90
3759975.72	71.60	73.20	75.20	76.70	78.70	81.10	82.90	84.40	86.90
3759906.09	70.70	72.60	74.40	76.20	77.80	80.20	81.90	83.50	85.20
3759836.46	70.40	72.00	74.20	76.20	77.40	79.40	80.90	82.10	83.70
3759766.83	67.50	71.30	73.10	74.40	76.10	77.60	79.10	80.30	82.00
3759697.20	68.00	68.80	72.10	73.40	74.30	75.80	77.50	78.70	80.30
3759627.57	67.70	68.10	70.40	71.80	73.40	74.60	75.60	76.90	78.60
3759557.94	66.40	67.70	68.90	70.30	72.00	73.00	74.20	75.10	77.10
3759488.31	65.70	66.00	67.40	68.50	69.90	71.20	72.70	73.40	74.60
3759418.68	64.20	64.90	65.40	66.70	67.80	69.50	70.50	71.40	72.90
3759349.05	62.40	63.30	63.70	65.20	66.10	67.60	68.70	69.40	70.10
3759279.42	60.80	62.10	62.10	62.90	64.30	65.40	67.40	67.50	69.00
3759209.79	58.40	59.30	60.40	61.40	62.60	63.90	65.10	65.90	67.10
3759140.16	57.00	57.80	58.80	60.00	60.50	61.80	63.70	70.00	66.20
3759070.53	55.60	56.70	57.40	58.60	59.70	61.70	63.40	63.80	64.80
3759000.90	54.90	56.70	56.80	58.20	59.10	61.40	62.10	63.00	64.20

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	361.90	361.90	361.90
3760323.87	361.90	361.90	361.90
3760254.24	361.90	361.90	361.90
3760184.61	361.10	361.90	361.90
3760114.98	324.50	324.70	336.70
3760045.35	89.50	91.10	323.90
3759975.72	88.40	89.80	91.70
3759906.09	86.70	88.10	89.40
3759836.46	84.90	86.30	87.40
3759766.83	83.20	84.30	85.60
3759697.20	81.50	82.50	83.40
3759627.57	79.60	80.50	81.30
3759557.94	77.60	78.60	78.90
3759488.31	75.80	76.70	76.90
3759418.68	73.60	74.50	75.00
3759349.05	71.50	72.40	73.40

```
 3759279.42 |         69.70        70.80        72.20
 3759209.79 |         68.20        69.70        71.50
 3759140.16 |         67.40        68.50        70.00
 3759070.53 |         66.00        67.90        69.10
 3759000.90 |         65.80        66.90        68.20
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
   ( 403076.6, 3759566.9,      63.0,      63.0,       0.0);        ( 403074.6, 3759594.7,      63.1,      63.1,       0.0);
   ( 403074.3, 3759652.4,      63.8,      63.8,       0.0);        ( 403036.2, 3759545.2,      61.6,      61.6,       0.0);
   ( 403491.1, 3759689.7,      73.7,      73.7,       0.0);        ( 403558.2, 3759512.8,      71.0,      71.0,       0.0);
   ( 403587.6, 3759479.4,      70.9,      70.9,       0.0);        ( 403471.1, 3759691.3,      73.3,      73.3,       0.0);
   ( 403097.0, 3760166.2,      69.1,      69.1,       0.0);
```


* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0001291	403339.6	3759627.6	-7.09
L0001292	403339.6	3759627.6	-0.90
L0001308	403207.8	3759557.9	-2.06
L0001309	403207.8	3759557.9	-1.64
L0001316	403405.5	3759627.6	-4.59
L0001317	403405.5	3759627.6	-3.45
L0001347	403537.4	3759418.7	0.82
L0001375	403669.3	3759209.8	-3.56
L0001376	403669.3	3759209.8	-5.02
L0001427	403339.6	3759070.5	-4.58
L0001428	403339.6	3759070.5	-3.94
L0001455	403537.4	3759488.3	-1.57
L0001456	403537.4	3759488.3	-7.74
L0001471	403471.5	3759627.6	-0.10
L0001480	403405.5	3759697.2	-0.35
L0001495	403339.6	3759836.5	-2.86
L0001496	403339.6	3759836.5	-2.05

```
                         L0001519           403207.8     3760045.4           -1.37
                         L0001520           403207.8     3760045.4           -7.99
                         L0001544           403075.9     3760254.2           -1.02

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                           ***        19:44:58
                                                                                                               PAGE  25
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                              (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                  (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                           ***        19:44:58
                                                                                                               PAGE  26
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

  Surface file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.SFC                                  Met Version:  16216
  Profile file:   E:\New MET data\PICO_V9_ADJU\PICO_v9.PFL
  Surface format: FREE
  Profile format: FREE
  Surface station no.:     3166                Upper air station no.:     3190
                Name: UNKNOWN                                Name: UNKNOWN
                Year:   2010                                 Year:   2010

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01  -38.6  0.384 -9.000 -9.000 -999.  572.    162.4  0.34   0.73   1.00    3.10  321.    9.1  283.8    5.5
 10 01 01   1 02  -33.5  0.333 -9.000 -9.000 -999.  462.    121.8  0.34   0.73   1.00    2.70  217.    9.1  282.5    5.5
 10 01 01   1 03  -21.9  0.218 -9.000 -9.000 -999.  251.     52.2  0.34   0.73   1.00    1.80  290.    9.1  282.5    5.5
```

```
10 01 01   1 04  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  255.    9.1  282.0    5.5
10 01 01   1 05  -21.9  0.218 -9.000 -9.000 -999.  245.     52.2  0.34   0.73   1.00    1.80  234.    9.1  282.0    5.5
10 01 01   1 06  -27.1  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  258.    9.1  282.0    5.5
10 01 01   1 07  -27.2  0.269 -9.000 -9.000 -999.  334.     79.5  0.34   0.73   1.00    2.20  213.    9.1  281.4    5.5
10 01 01   1 08  -22.6  0.335 -9.000 -9.000 -999.  466.    151.7  0.34   0.73   0.54    2.70  215.    9.1  282.0    5.5
10 01 01   1 09   26.9  0.249  0.347  0.008   56.  302.    -51.9  0.34   0.73   0.32    1.80  199.    9.1  284.2    5.5
10 01 01   1 10   65.3  0.365  0.593  0.008  116.  529.    -67.5  0.34   0.73   0.24    2.70  117.    9.1  288.1    5.5
10 01 01   1 11   94.5  0.374  0.933  0.008  311.  550.    -50.3  0.34   0.73   0.21    2.70  243.    9.1  290.4    5.5
10 01 01   1 12  103.9  0.279  1.087  0.008  448.  359.    -19.0  0.34   0.73   0.20    1.80  130.    9.1  293.1    5.5
10 01 01   1 13   83.7  0.273  1.073  0.008  533.  343.    -22.0  0.34   0.73   0.20    1.80  282.    9.1  294.9    5.5
10 01 01   1 14   82.0  0.218  1.112  0.008  606.  245.    -11.4  0.34   0.73   0.21    1.30  290.    9.1  295.9    5.5
10 01 01   1 15   38.9  0.202  0.881  0.008  636.  217.    -19.0  0.34   0.73   0.25    1.30  192.    9.1  294.9    5.5
10 01 01   1 16   11.4  0.181  0.588  0.008  643.  185.    -47.4  0.34   0.73   0.33    1.30  218.    9.1  293.8    5.5
10 01 01   1 17  -10.7  0.155 -9.000 -9.000 -999.  147.     31.4  0.34   0.73   0.60    1.30  255.    9.1  292.0    5.5
10 01 01   1 18   -5.5  0.104 -9.000 -9.000 -999.   81.     18.6  0.34   0.73   1.00    0.90  129.    9.1  289.2    5.5
10 01 01   1 19  -11.8  0.154 -9.000 -9.000 -999.  145.     27.8  0.34   0.73   1.00    1.30  264.    9.1  287.5    5.5
10 01 01   1 20  -11.8  0.154 -9.000 -9.000 -999.  144.     27.8  0.34   0.73   1.00    1.30   25.    9.1  287.0    5.5
10 01 01   1 21  -21.6  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  343.    9.1  285.9    5.5
10 01 01   1 22  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  332.    9.1  284.9    5.5
10 01 01   1 23  -21.7  0.218 -9.000 -9.000 -999.  244.     52.2  0.34   0.73   1.00    1.80  178.    9.1  284.2    5.5
10 01 01   1 24  -11.8  0.154 -9.000 -9.000 -999.  145.     27.6  0.34   0.73   1.00    1.30   28.    9.1  283.1    5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
10 01 01 01    5.5 0 -999.  -99.00   283.8   99.0  -99.00  -99.00
10 01 01 01    9.1 1  321.    3.10  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112  ***   *** 19391 Whittier Blvd BP                                          ***        06/26/23
*** AERMET - VERSION  16216 ***   *** DPM Concentrations 2nd 14YR 2041-2054                           ***        19:44:58
                                                                                                               PAGE  27
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

                          *** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: ALL      ***
                              INCLUDING SOURCE(S):     STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
               L0001286    , L0001287    , L0001288    , L0001289    , L0001290    , L0001291    , L0001292    , L0001293    ,
               L0001294    , L0001295    , L0001296    , L0001297    , L0001298    , L0001299    , L0001300    , L0001301    ,
               L0001302    , L0001303    , L0001304    , L0001305    , L0001306    , L0001307    , L0001308    ,  . . .      ,

                               *** NETWORK ID: UCART1   ;  NETWORK TYPE: GRIDCART ***

                                    ** CONC OF DPM      IN MICROGRAMS/M**3                      **

   Y-COORD  |                                          X-COORD (METERS)
   (METERS) |     402680.32    402746.25    402812.18    402878.11    402944.04    403009.97    403075.90    403141.83    403207.76
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 3760393.50 |       0.00006      0.00007      0.00008      0.00009      0.00012      0.00025      0.00017      0.00015      0.00014
 3760323.87 |       0.00006      0.00007      0.00009      0.00011      0.00014      0.00028      0.00034      0.00020      0.00018
```

3760254.24	0.00007	0.00009	0.00010	0.00013	0.00016	0.00022	0.00051	0.00030	0.00024
3760184.61	0.00008	0.00010	0.00012	0.00015	0.00018	0.00023	0.00034	0.00062	0.00033
3760114.98	0.00009	0.00011	0.00014	0.00017	0.00021	0.00026	0.00033	0.00053	0.00049
3760045.35	0.00010	0.00012	0.00015	0.00019	0.00024	0.00030	0.00037	0.00047	0.00071
3759975.72	0.00011	0.00014	0.00017	0.00022	0.00027	0.00034	0.00043	0.00053	0.00068
3759906.09	0.00012	0.00015	0.00019	0.00024	0.00031	0.00039	0.00050	0.00062	0.00076
3759836.46	0.00013	0.00016	0.00021	0.00026	0.00033	0.00043	0.00057	0.00076	0.00101
3759766.83	0.00014	0.00017	0.00022	0.00028	0.00036	0.00047	0.00064	0.00109	0.00132
3759697.20	0.00014	0.00018	0.00023	0.00030	0.00038	0.00050	0.00074	0.00105	0.00144
3759627.57	0.00014	0.00018	0.00024	0.00030	0.00039	0.00053	0.00093	0.00098	0.00174
3759557.94	0.00014	0.00018	0.00023	0.00030	0.00040	0.00057	0.00093	0.00155	0.00234
3759488.31	0.00013	0.00017	0.00022	0.00029	0.00040	0.00059	0.00095	0.00155	0.00159
3759418.68	0.00013	0.00017	0.00022	0.00029	0.00040	0.00058	0.00080	0.00088	0.00073
3759349.05	0.00012	0.00016	0.00020	0.00028	0.00038	0.00050	0.00055	0.00053	0.00045
3759279.42	0.00011	0.00014	0.00019	0.00025	0.00032	0.00038	0.00038	0.00034	0.00029
3759209.79	0.00010	0.00013	0.00016	0.00021	0.00025	0.00027	0.00025	0.00023	0.00021
3759140.16	0.00009	0.00011	0.00014	0.00016	0.00018	0.00019	0.00018	0.00017	0.00016
3759070.53	0.00008	0.00009	0.00011	0.00013	0.00013	0.00014	0.00013	0.00013	0.00013
3759000.90	0.00007	0.00008	0.00009	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001286 , L0001287 , L0001288 , L0001289 , L0001290 , L0001291 , L0001292 , L0001293 ,
L0001294 , L0001295 , L0001296 , L0001297 , L0001298 , L0001299 , L0001300 , L0001301 ,
L0001302 , L0001303 , L0001304 , L0001305 , L0001306 , L0001307 , L0001308 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403273.69	403339.62	403405.55	403471.48	403537.41	403603.34	403669.27	403735.20	403801.13
3760393.50	0.00014	0.00013	0.00013	0.00012	0.00011	0.00010	0.00009	0.00008	0.00008
3760323.87	0.00017	0.00017	0.00016	0.00015	0.00013	0.00012	0.00011	0.00010	0.00009
3760254.24	0.00022	0.00021	0.00020	0.00018	0.00016	0.00015	0.00013	0.00011	0.00010
3760184.61	0.00029	0.00027	0.00025	0.00023	0.00020	0.00018	0.00015	0.00013	0.00011
3760114.98	0.00039	0.00036	0.00032	0.00029	0.00025	0.00021	0.00018	0.00015	0.00013
3760045.35	0.00054	0.00047	0.00042	0.00036	0.00031	0.00026	0.00021	0.00017	0.00014
3759975.72	0.00084	0.00063	0.00054	0.00046	0.00038	0.00031	0.00025	0.00019	0.00015
3759906.09	0.00107	0.00088	0.00071	0.00058	0.00046	0.00035	0.00027	0.00020	0.00015
3759836.46	0.00119	0.00131	0.00097	0.00072	0.00053	0.00038	0.00027	0.00020	0.00015
3759766.83	0.00158	0.00175	0.00142	0.00084	0.00055	0.00037	0.00026	0.00019	0.00014
3759697.20	0.00189	0.00153	0.00185	0.00089	0.00053	0.00035	0.00024	0.00017	0.00013
3759627.57	0.00216	0.00252	0.00182	0.00107	0.00051	0.00033	0.00023	0.00016	0.00012

3759557.94	0.00204	0.00143	0.00118	0.00115	0.00061	0.00033	0.00022	0.00016	0.00012
3759488.31	0.00120	0.00090	0.00077	0.00131	0.00076	0.00033	0.00021	0.00015	0.00011
3759418.68	0.00062	0.00055	0.00051	0.00052	0.00047	0.00028	0.00019	0.00014	0.00011
3759349.05	0.00039	0.00036	0.00034	0.00032	0.00028	0.00024	0.00018	0.00014	0.00011
3759279.42	0.00027	0.00026	0.00025	0.00023	0.00021	0.00018	0.00016	0.00013	0.00010
3759209.79	0.00020	0.00019	0.00019	0.00017	0.00016	0.00015	0.00014	0.00011	0.00009
3759140.16	0.00015	0.00015	0.00015	0.00014	0.00013	0.00013	0.00012	0.00010	0.00008
3759070.53	0.00014	0.00013	0.00013	0.00012	0.00011	0.00010	0.00009	0.00008	0.00007
3759000.90	0.00010	0.00010	0.00010	0.00009	0.00009	0.00008	0.00008	0.00007	0.00006

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001286 , L0001287 , L0001288 , L0001289 , L0001290 , L0001291 , L0001292 , L0001293 ,
L0001294 , L0001295 , L0001296 , L0001297 , L0001298 , L0001299 , L0001300 , L0001301 ,
L0001302 , L0001303 , L0001304 , L0001305 , L0001306 , L0001307 , L0001308 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 403867.06	403932.99	403998.92
3760393.50	0.00007	0.00006	0.00006
3760323.87	0.00008	0.00007	0.00006
3760254.24	0.00009	0.00008	0.00007
3760184.61	0.00010	0.00008	0.00007
3760114.98	0.00011	0.00009	0.00008
3760045.35	0.00011	0.00009	0.00008
3759975.72	0.00012	0.00009	0.00008
3759906.09	0.00012	0.00009	0.00007
3759836.46	0.00011	0.00009	0.00007
3759766.83	0.00011	0.00008	0.00007
3759697.20	0.00010	0.00008	0.00006
3759627.57	0.00009	0.00007	0.00006
3759557.94	0.00009	0.00007	0.00006
3759488.31	0.00009	0.00007	0.00006
3759418.68	0.00009	0.00007	0.00006
3759349.05	0.00009	0.00007	0.00006
3759279.42	0.00008	0.00007	0.00006
3759209.79	0.00008	0.00006	0.00005
3759140.16	0.00007	0.00006	0.00005
3759070.53	0.00006	0.00006	0.00005
3759000.90	0.00006	0.00005	0.00005

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , STCK2 , STCK3 , STCK4 , STCK5 ,
L0001286 , L0001287 , L0001288 , L0001289 , L0001290 , L0001291 , L0001292 , L0001293 ,
L0001294 , L0001295 , L0001296 , L0001297 , L0001298 , L0001299 , L0001300 , L0001301 ,
L0001302 , L0001303 , L0001304 , L0001305 , L0001306 , L0001307 , L0001308 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
403076.63	3759566.89	0.00094	403074.61	3759594.66	0.00092
403074.33	3759652.43	0.00088	403036.23	3759545.23	0.00067
403491.13	3759689.69	0.00075	403558.25	3759512.77	0.00056
403587.63	3759479.41	0.00038	403471.13	3759691.31	0.00090
403096.96	3760166.19	0.00039			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00252 AT	(403339.62, 3759627.57, 68.10, 68.10, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.00234 AT	(403207.76, 3759557.94, 66.70, 66.70, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.00216 AT	(403273.69, 3759627.57, 67.70, 67.70, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.00204 AT	(403273.69, 3759557.94, 66.40, 66.40, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.00189 AT	(403273.69, 3759697.20, 68.00, 68.00, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00185 AT	(403405.55, 3759697.20, 72.10, 72.10, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00182 AT	(403405.55, 3759627.57, 70.40, 70.40, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00175 AT	(403339.62, 3759766.83, 71.30, 71.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00174 AT	(403207.76, 3759627.57, 67.30, 67.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00159 AT	(403207.76, 3759488.31, 64.10, 64.10, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   9 Warning Message(s)
A Total of   1277 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   152 Calm Hours Identified

A Total of   1125 Missing Hours Identified (2.57 Percent)

   ******** FATAL ERROR MESSAGES ********
             *** NONE ***

   ********   WARNING MESSAGES   ********
SO W320   408   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   409   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   410   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   411   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
SO W320   412   PPARM: Input Parameter May Be Out-of-Range for Parameter   VS
ME W186   896   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   896   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 15010101
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

   ****
   *** AERMOD Finishes Successfully ***
   ****

EMFAC2021 for South Coast AQMD | PM2.5 Running and Idling Exhaust | Averages at bottom of the sheet

Area	Season	Veh	Fuel	MdlYr	Speed (Miles/hr)	2023 (gms/mile)	2024 (gms/mile)	2025 (gms/mile)	2026 (gms/mile)	2027 (gms/mile)	2028 (gms/mile)	2029 (gms/mile)	2030 (gms/mile)	2031 (gms/mile)	2032 (gms/mile)	2033 (gms/mile)	2034 (gms/mile)	2035 (gms/mile)
South Coast AQMD	*Annual*	*LHDT2*	*DSL*	Aggregated	*0*	0.778842	0.777688	0.777509	0.777544	0.777539	0.77765	0.777228	0.776552	0.772631	0.770784	0.768303	0.765381	0.761339
South Coast AQMD	Annual	LHDT2	DSL	Aggregated	5	0.072381	0.065732	0.060612	0.056486	0.053235	0.050727	0.048784	0.047295	0.046041	0.04507	0.044345	0.043925	0.043383
South Coast AQMD	Annual	LHDT2	DSL	Aggregated	10	0.059607	0.054347	0.050289	0.04702	0.044449	0.042473	0.040952	0.039803	0.03887	0.03818	0.037707	0.037493	0.037198
South Coast AQMD	Annual	LHDT2	DSL	Aggregated	35	0.023739	0.02193	0.020552	0.019459	0.018621	0.017998	0.017541	0.017219	0.016983	0.016838	0.016776	0.01681	0.016819
South Coast AQMD	*Annual*	*MHDT*	*DSL*	Aggregated	*0*	0.086748	0.07273	0.060303	0.049764	0.041162	0.034359	0.028849	0.024397	0.020752	0.018038	0.015804	0.014045	0.012547
South Coast AQMD	Annual	MHDT	DSL	Aggregated	5	0.055457	0.047035	0.039388	0.032878	0.027462	0.023065	0.019496	0.016589	0.014187	0.012242	0.010647	0.009378	0.008311
South Coast AQMD	Annual	MHDT	DSL	Aggregated	10	0.045219	0.038328	0.032074	0.026749	0.022318	0.018721	0.015799	0.013418	0.011449	0.009852	0.008541	0.007498	0.006618
South Coast AQMD	Annual	MHDT	DSL	Aggregated	35	0.010371	0.008966	0.007687	0.006597	0.005684	0.004945	0.004336	0.003836	0.003412	0.003062	0.002766	0.002529	0.002319
South Coast AQMD	*Annual*	*HHDT*	*DSL*	Aggregated	*0*	0.016309	0.015375	0.014634	0.013923	0.013343	0.012838	0.012276	0.011792	0.011375	0.011065	0.010815	0.010558	0.010383
South Coast AQMD	Annual	HHDT	DSL	Aggregated	5	0.014741	0.014315	0.013927	0.013603	0.013294	0.013002	0.012669	0.012344	0.012015	0.011674	0.011385	0.011096	0.010891
South Coast AQMD	Annual	HHDT	DSL	Aggregated	10	0.012582	0.012166	0.011786	0.011464	0.01116	0.010875	0.010558	0.01025	0.009941	0.009624	0.009354	0.009087	0.008898
South Coast AQMD	Annual	HHDT	DSL	Aggregated	35	0.008564	0.008261	0.007966	0.00773	0.007515	0.00732	0.007119	0.006927	0.006736	0.006543	0.006372	0.006207	0.006082

	14 yr 2027-2040 **5 mph**	**14 yr** 2027-2040 **10 mph**	**14 yr** 2027-2040 **35 mph**	**14 yr** 2027-2040 **0 mph (idling)**
LHDT2	0.04554	0.03871	0.01716	0.76775
MHDT	0.01234	0.00993	0.00305	0.01857
HHDT	0.01154	0.00948	0.00644	0.01107

	14 yr 2041-2054 **5 mph**	**14 yr** 2041-2054 **10 mph**	**14 yr** 2041-2054 **35 mph**	**14 yr** 2041-2054 **0 mph (idling)**
LHDT2	0.04075	0.03537	0.01654	0.76173
MHDT	0.00414	0.00320	0.00151	0.00731
HHDT	0.01010	0.00818	0.00564	0.00973

	2 yr 2025-2026 **5 mph**	**2 yr** 2025-2026 **10 mph**	**2 yr** 2025-2026 **35 mph**	**2 yr** 2025-2026 **0 mph (idling)**
LHDT2	0.05855	0.04865	0.02001	0.77753
MHDT	0.03613	0.02941	0.00714	0.05503
HHDT	0.01376	0.01163	0.00785	0.01428

	1 yr 2024 **5 mph**	**1 yr** 2024 **10 mph**	**1 yr** 2024 **35 mph**	**1 yr** 2024 **0 mph (idling)**
LHDT2	0.08144	0.05435	0.02193	0.77769
MHDT	0.06814	0.03833	0.00897	0.07273
HHDT	0.02111	0.01217	0.00826	0.01537

2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)	(gms/mile)
0.76085	0.760267	0.759676	0.760052	0.760312	0.76051	0.760671	0.760734	0.760987	0.761186	0.761437	0.761606	0.761852	0.762113	0.762615	0.762615	0.762615	0.762615	0.762615
0.043392	0.043222	0.042986	0.042652	0.04245	0.042365	0.042288	0.042276	0.042073	0.041864	0.041578	0.041324	0.040992	0.040285	0.039094	0.039094	0.039094	0.039094	0.039094
0.037256	0.037157	0.036992	0.03675	0.03661	0.036571	0.036535	0.036541	0.036416	0.036276	0.036077	0.035892	0.035652	0.035053	0.034045	0.034045	0.034045	0.034045	0.034045
0.016923	0.016956	0.016952	0.016912	0.016899	0.016917	0.016928	0.016946	0.016919	0.01688	0.016818	0.016754	0.016672	0.016443	0.016063	0.016063	0.016063	0.016063	0.016063
0.011458	0.010595	0.009878	0.009315	0.008763	0.008359	0.007956	0.00768	0.007413	0.007299	0.00721	0.00714	0.007086	0.007051	0.00702	0.00702	0.00702	0.00702	0.00702
0.007445	0.006754	0.006178	0.005742	0.00532	0.005004	0.004692	0.004432	0.004179	0.004103	0.004044	0.003994	0.003966	0.003944	0.003924	0.003924	0.003924	0.003924	0.003924
0.005911	0.005347	0.004876	0.004519	0.004174	0.003915	0.003659	0.003445	0.003237	0.003173	0.003122	0.00308	0.003054	0.003034	0.003016	0.003016	0.003016	0.003016	0.003016
0.002176	0.002058	0.001957	0.001876	0.001799	0.001735	0.001671	0.001614	0.001561	0.001533	0.001508	0.001485	0.001465	0.001449	0.001434	0.001434	0.001434	0.001434	0.001434
0.010261	0.010171	0.010094	0.010026	0.009959	0.009899	0.009857	0.009823	0.009786	0.009754	0.009726	0.009704	0.009687	0.009675	0.009662	0.009662	0.009662	0.009662	0.009662
0.010738	0.011114	0.010545	0.010469	0.010394	0.010324	0.010266	0.01021	0.010152	0.010107	0.010069	0.010038	0.010032	0.010032	0.010031	0.010031	0.010031	0.010031	0.010031
0.008758	0.008661	0.008579	0.00851	0.008443	0.008382	0.00833	0.008282	0.008233	0.008194	0.008161	0.008134	0.008126	0.008124	0.008121	0.008121	0.008121	0.008121	0.008121
0.005994	0.005922	0.005861	0.005811	0.005769	0.005734	0.005705	0.005682	0.005662	0.005647	0.005635	0.005625	0.005616	0.00561	0.005603	0.005603	0.005603	0.005603	0.005603

GANDDINI GROUP INC.

714.795.3100 | ganddini.com

New EIR Technical Appendix J

Project Conceptual Grading Plan

SEE SHEET 2

SEE SHEET 3

		EARTHWORK BALANCE CALCULATIONS	10/21/2021	
PROJECT:		WHITTIER BLVD BUSINESS CENTER		
JOB#		3868		
			QUANTITY	UNITS
	K.	SITE AREA:	580,070	SF
	L.	SUBSIDENCE FACTOR:	0.120	
	M.	SHRINKAGE FACTOR:	12	%
	N.	SITE STRIPPING FACTOR:	0.1	
	O.	OVEREXCAVATION:	21,407	CY
	A.	CALCULATED CUT:	18,135	CY
		ADDITION SLAB CUT:	892	CY
		FOOTING AND UTILITY SPOILS	**1,645**	CY
		RECYCLE MATERIAL	**1,600**	CY
		UGS-WQMP	**4,489**	CY
		TOTAL CUT: (A+B)	**26,761**	CY
	D.	CALCULATED FILL:	16,265	CY
	E.	LIGHT PAVING FILL:	-	CY
	F.	SUBSIDENCE: (LxK)/27=	2,578	CY
	G.	SHRINKAGE: (M/100)C=	3,211	CY
	H.	SITE STRIPPING	2,138	CY
			-	CY
	I.	OVEREXCAVATION SHRINKAGE	2,569	CY
	J.	**TOTAL FILL: (D+E+F+G+H)=**	**26,761**	CY
	K.	**TOTAL (IMPORT) OR EXPORT:**	**0**	CY
		NOTE: *EARTHWORK FIGURES SHOWN ARE APPROXIMATE FIGURES & ARE TO BE USED BY BLDG DEPT ONLY. CONTRACTOR SHALL CALCULATE THEIR OWN EARTHWORK QUANTITIES AND BID A COMPLETE JOB.*		
		SITE ADJUSTMENT	0.00	

Building Footprint
288,499 s.f.

ONE STORY CONCRETE BUILDING
WITH TWO STORY OFFICE AREA
BUILDING PERIMETER
FOOTPRINT AREA =213,450± S.F.
BUILDING HEIGHT =28'±

SLOPE FLOOR
S=0.005

WHITTIER BLVD.

RETAINING WALL "A"

SORENSEN AVE.
WALNUT GROVE DR.
WHITTIER BLVD.
AUTUMN AVE.
PENN ST.
TURNLEAF AVE.
BLUE SKY CT.
SORENSEN AVE.
SITE
WASHINGTON BLVD.

VICINITY MAP
N.T.S.

0 15 30 60 90
SCALE:1"=30'

Last Update: 10/27/22
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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
WHITTIER BOULEVARD BUSINESS PARK
12352 WHITTIER BLVD.

3868/1 OF 6 SHEET

PREPARED FOR:

WESTERN REALCO, LLC.
500 NEWPORT CENTER DRIVE, SUITE 630
NEWPORT BEACH, CA 92660
PHONE: (949) 720-3788

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

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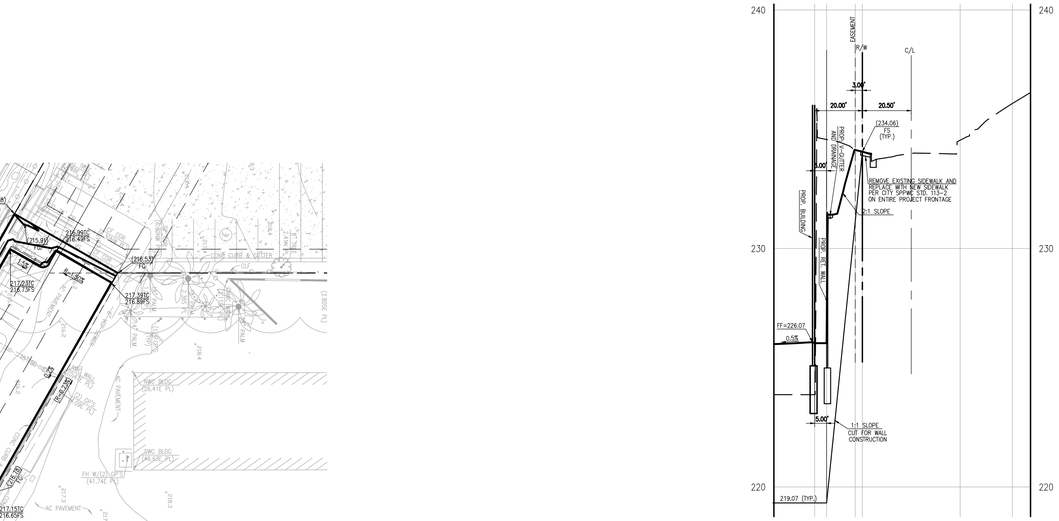
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____

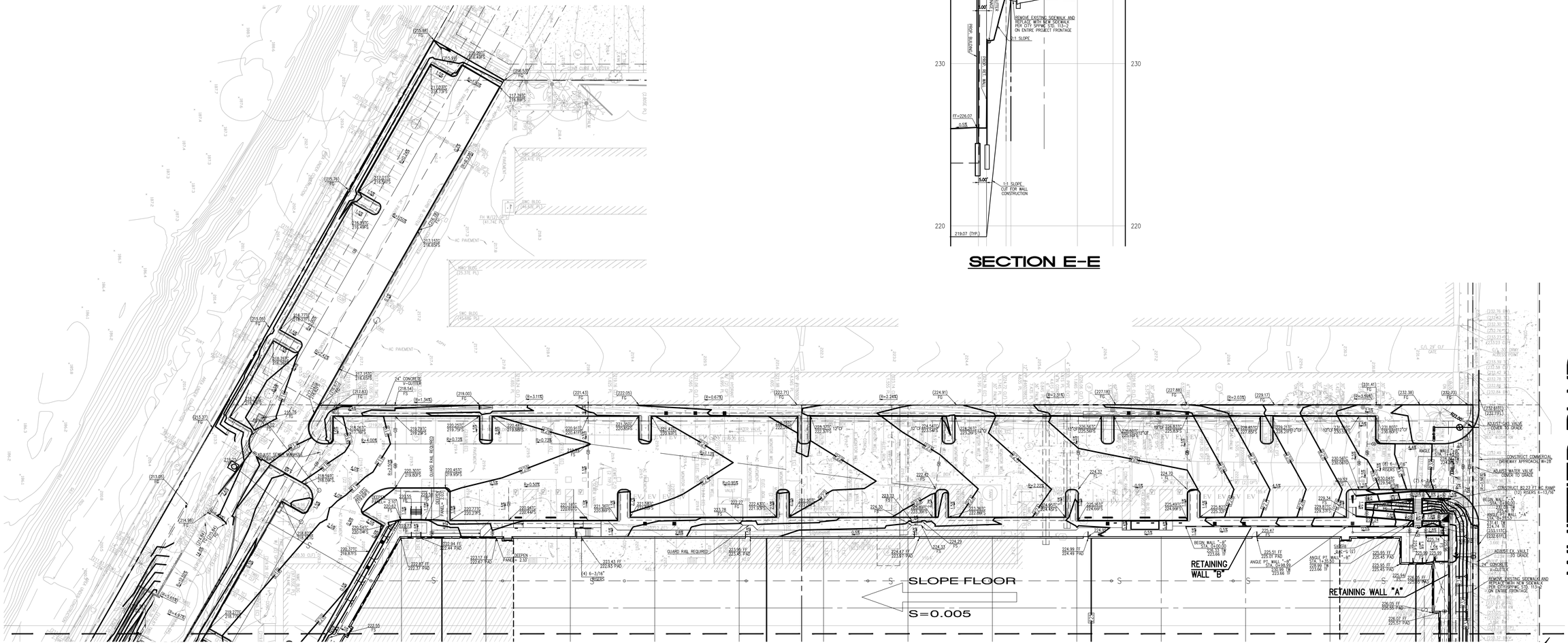
Approved by _____ Date _____

Public Works Director _____ R.C.E. XXXXX

Sheet 1 of 6 Sheets



SECTION E-E



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SCALE:1"=30'

Last Update: 10/27/22
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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
WHITTIER BOULEVARD
BUSINESS PARK
12352 WHITTIER BLVD.

3868/2 OF 6 SHEET

PREPARED FOR:

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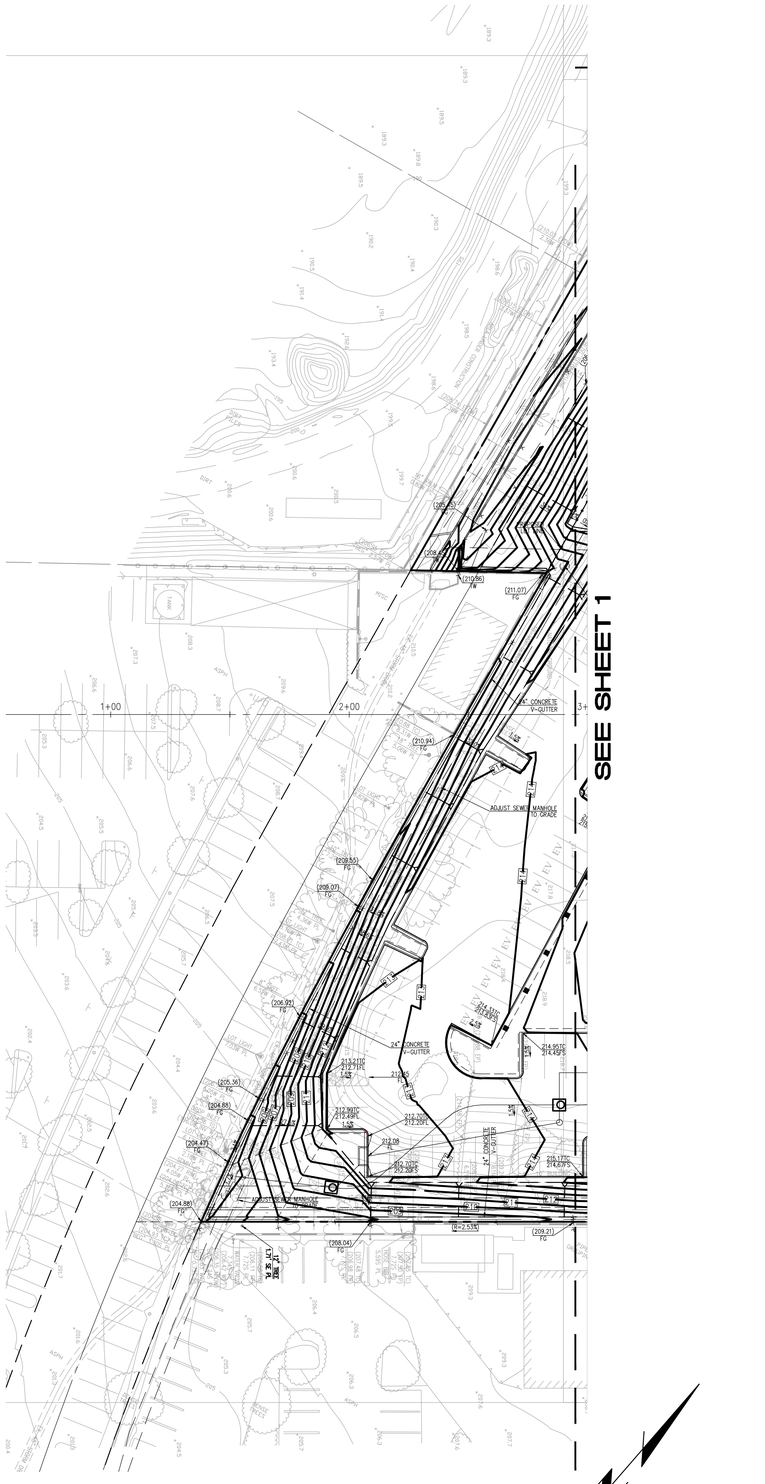
Sheet 2 of 6 Sheets



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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN
WHITTIER BOULEVARD
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12352 WHITTIER BLVD.

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Date ______

Approved by Date ______

Public Works Director R.C.E. XXXXX

Sheet 3 of 6 Sheets

3868/3 OF 6 SHEET

SEE SHEET 5

SEE SHEET 5

Building Footprint
288,499 s.f.

ONE STORY CONCRETE BUILDING
WITH TWO STORY OFFICE AREA
BUILDING PERIMETER =1,713,430± S.F.
FOOTPRINT AREA =213,450± S.F.
BUILDING HEIGHT =28'±

ONE STORY CONCRETE BUILDING
WITH TWO STORY OFFICE AREA
BUILDING PERIMETER =1,713,430± S.F.
FOOTPRINT AREA =213,450± S.F.
BUILDING HEIGHT =28'±

WHITTIER BLVD.

STORMTECH MC-4500 DETENTION CHAMBERS
QTY: 220 CHAMBERS (44,101 CF MIN.)
36-INCH STONE FOUNDATION DEPTH

PROPOSED SUMP PUMP
83 GPM MIN

BIO CLEAN VOLUME-BASED WETLANDS
MODEL WM-28-23-V (30,973 CF MIN)

EX. SEWER LINE

PROPOSED ST LIGHT

PROPOSED RETAINING WALL

EX. FH

PROPOSED PUBLIC FIRE HYDRANT

PROPOSED 24" X-GUTTER

PROTECT IN PLACE EX. 12" WATER MAIN

PROPOSED 10" LINE

PROP MH SPPWC 321-2

PROP MH SPPWC 321-1

PROP MH SPPWC 321-3

PROP 30" NYLOPLAST MH

7-GRATE PROP CB SPPWC 303-5

CON FLOW SD 12" HDPE

LOW FLOW SD 12" HDPE

LOW FLOW 12" HDPE

12" HDPE

18" HDPE

24" HDPE

12"x12" CATCH BASIN

12" CATCH BASIN

24" DROP INLET

CONCRETE FLUME WITH GRATE

S=0.0050

205.57 INV

205.40 INV

196.40 BOT

P/L

R/W

0 15 30 60 90

SCALE:1"=30'

Last Update: 10/27/22
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PREPARED FOR:

WESTERN REALCO, LLC.
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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL UTILITY PLAN
WHITTIER BOULEVARD BUSINESS PARK
12352 WHITTIER BLVD.

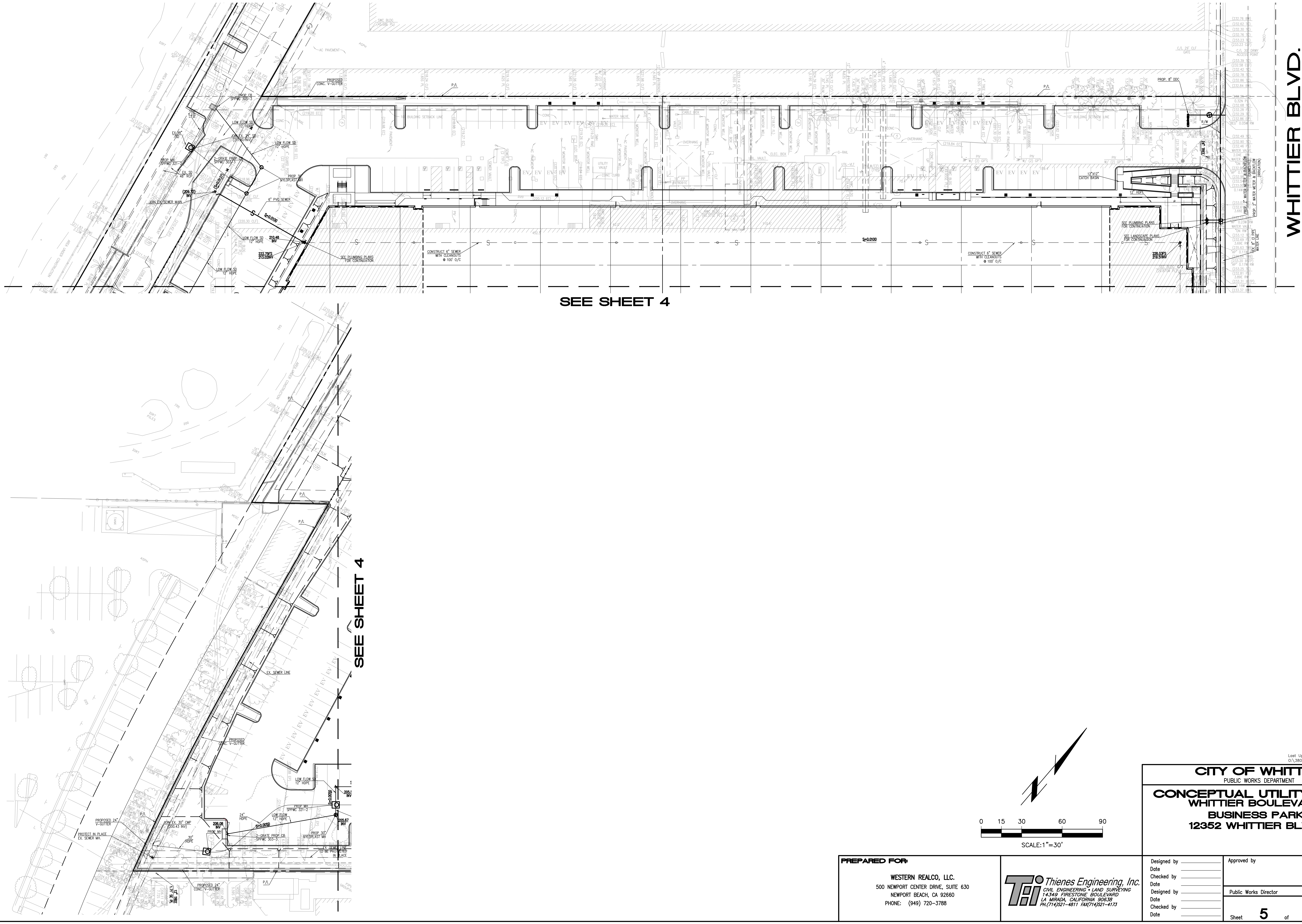
Designed by _____ Date _____
Checked by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____

Approved by _____ Date _____

Public Works Director _____ R.C.E. XXXXX

Sheet 4 of 6 Sheets

3868/4 OF 6 SHEET



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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL UTILITY PLAN
WHITTIER BOULEVARD
BUSINESS PARK
12352 WHITTIER BLVD.

PREPARED FOR:

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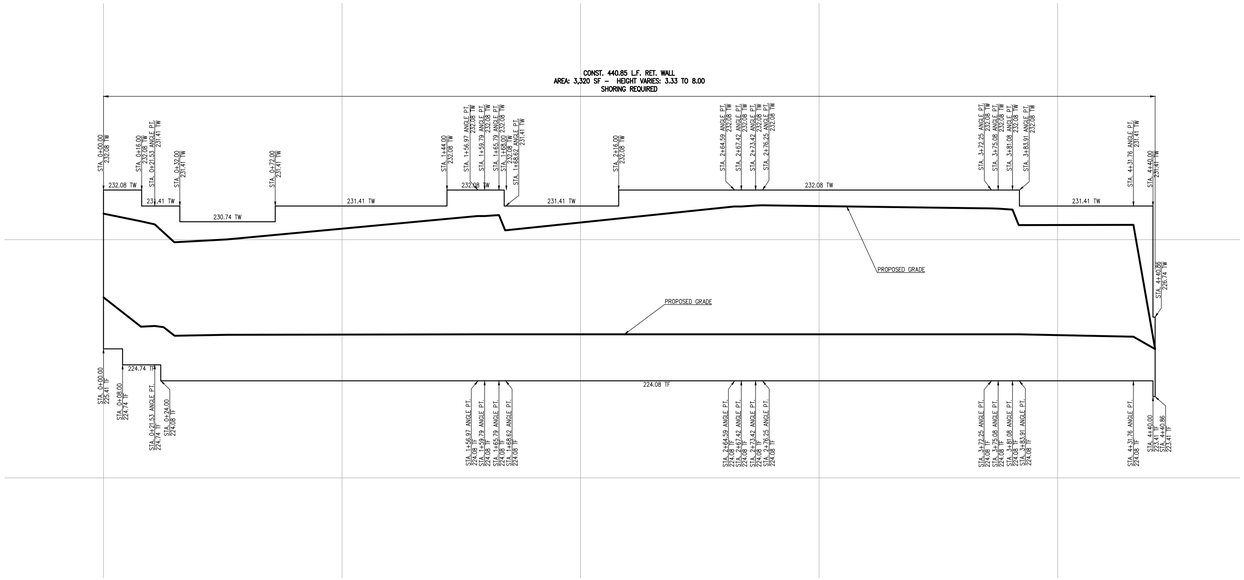
Public Works Director R.C.E. XXXXX

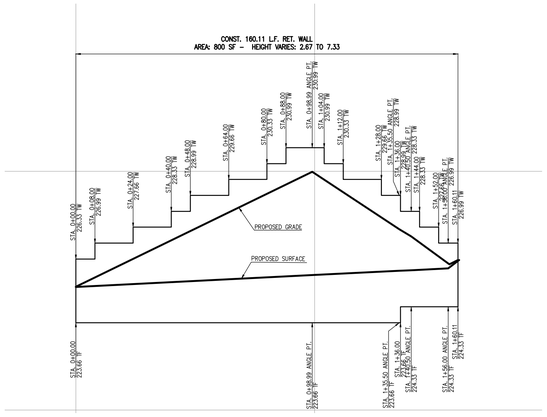
Sheet 5 of 6 Sheets

3868/5 OF 6 SHEET



WALL – A

VERT. SCALE:1"=3'
HOR. SCALE:1"=30'



WALL – B

VERT. SCALE:1"=3'
HOR. SCALE:1"=30'

Last Update: 10/27/22
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CITY OF WHITTIER
PUBLIC WORKS DEPARTMENT

CONCEPTUAL WALL PROFILES

WHITTIER BOULEVARD BUSINESS PARK

12352 WHITTIER BLVD.

3868/6 OF 6 SHEET

PREPARED FOR:

WESTERN REALCO, LLC.
500 NEWPORT CENTER DRIVE, SUITE 630
NEWPORT BEACH, CA 92660
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Checked by _____ Date _____
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Checked by _____ Date _____

Approved by _____ Date _____

Public Works Director _____ R.C.E. XXXXX

Sheet 6 of 6 Sheets

New EIR Technical Appendix K

Project Truck Turn Exhibits

TRUCK TURNING-IN EXHIBIT

WHITTIER FRONTAGE RD.

R=30.0'

COMMERCIAL DRIVEWAY
APPROACH, W=61'

R=30.0'

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SCALE: 1"= 80'

SHEET 1 OF 2

Last Update: 4/1/22
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TRUCK TURNING-OUT EXHIBIT

WHITTIER FRONTAGE RD.

R=30.0'

COMMERCIAL DRIVEWAY
APPROACH, W=61'

R=30.0'

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PH.(714)521-4811 FAX(714)521-4173

SCALE: 1"= 80'

SHEET 2 OF 2

Last Update: 3/30/22
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