Attachment 1

CITY OF MOUNTAIN VIEW
RESOLUTION NO.
SERIES 2019

A RESOLUTION CERTIFYING THE 555 EAST EVELYN AVENUE RESIDENTIAL PROJECT FINAL ENVIRONMENTAL IMPACT REPORT, CEQA FINDINGS, AND MITIGATION MONITORING AND REPORTING PROGRAM

WHEREAS, in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, *et seq.,* the City has prepared an EIR for the 555 East Evelyn Avenue Residential Project (hereinafter "Project"); and

WHEREAS, the City of Mountain View prepared and circulated a Draft Environmental Impact Report (EIR) for the requisite 45-day public comment period, which ended on November 26, 2018, and gave all public notices in the manner and at the times required by law; and

WHEREAS, the response to comments and EIR text revisions, together with the Draft EIR, comprise the Final EIR and were made available to the public on March 13, 2019; and

WHEREAS, the Environmental Planning Commission held a public hearing on April 3, 2019, on said application, and recommended approval to the City Council subject to the required findings; and

WHEREAS, the City Council held a public hearing on April 30, 2019, on said Project and the Final EIR, and received and considered all evidence presented at said hearing, including the recommendation for approval from the Environmental Planning Commission; and

WHEREAS, the Final EIR identifies certain significant effects on the environment that would result from the implementation of the proposed Project; and

WHEREAS, the Final EIR identifies mitigation measures which, when implemented, will substantially lessen or avoid the significant effects on the environment caused by the proposed Project; and

WHEREAS, the Final EIR and the Mitigation Monitoring or Reporting document for 555 East Evelyn Avenue were presented to the Environmental Planning Commission on April 3, 2019, and the Environmental Planning Commission has reviewed the Final

EIR and all associated staff reports, meeting minutes, testimony, and evidence constituting the record of proceedings; and

WHEREAS, the Final EIR identifies and analyzes a reasonable range of alternatives to the proposed Project; and

WHEREAS, the Mitigation Monitoring or Reporting Program has been prepared pursuant to CEQA to monitor the Project, which the lead agency has approved in conjunction with certification of the EIR in order to mitigate or avoid significant effects on the environment;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Mountain View:

1. Certifies that the Final EIR, attached hereto as Exhibit A, has been completed in compliance with CEQA and reflects the independent judgment and analysis of the City; and

2. Adopts the CEQA Findings of Fact and Statement of Overriding Considerations for the Project, attached hereto as Exhibit B, which findings are incorporated by reference herein; and

3. Adopts all of the feasible mitigation measures identified and described in the Final EIR and determines that the Project, as mitigated, will avoid or reduce all of the significant adverse impacts to a less-than-significant level; and

4. Finds that the alternatives identified and analyzed in the Final EIR cannot achieve the Project objectives to the same degree as the proposed Project, and that the location alternatives do not represent substantial environmental benefits over the proposed Project and are, therefore, rejected as infeasible, within the meaning of CEQA, in favor of the proposed Project; and

5. Adopts a Mitigation Monitoring or Reporting Program for the Project, attached hereto as Exhibit C.

TIME FOR JUDICIAL REVIEW:

The time within which judicial review of this document must be sought is governed by California Code of Procedure Section 1094.6 as established by Resolution No. 13850 adopted by the City Council on August 9, 1983.

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JR/6/RESO
839-04-30-19r

Exhibits: A. Final EIR
B. CEQA Findings of Fact for the Project
C. Mitigation Monitoring or Reporting Program

Exhibit A

Final EIR

555 East Evelyn Avenue Residential Project

Prepared by

CITY OF MOUNTAIN VIEW

In Consultation with

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

February 2019

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Appendices

SECTION 1.0 INTRODUCTION

This document, together with the Draft Environmental Impact Report (Draft EIR), constitutes the Final Environmental Impact Report (Final EIR) for the 555 East Evelyn Avenue Residential Project.

1.1 PURPOSE OF THE FINAL EIR

In conformance with the California Environmental Quality Act (CEQA) and CEQA Guidelines, this Final EIR provides objective information regarding the environmental consequences of the proposed project. The Final EIR also examines mitigation measures and alternatives to the project intended to reduce or eliminate significant environmental impacts. The Final EIR is intended to be used by the City of Mountain View in making decisions regarding the project. The CEQA Guidelines advise that, while the information in the Final EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the Draft EIR by making written findings for each of those significant effects.

According to the State Public Resources Code Section 21081, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless both of the following occur:

(a) The public agency makes one or more of the following findings with respect to each significant effect:

    (1) Changes or alterations have been required in, or incorporated into, the project which will mitigate or avoid the significant effect on the environment.

    (2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

    (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities of highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(b) With respect to significant effects which were subject to a finding under paragraph (3) of subdivision (a), the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment.

1.2 CONTENTS OF THE FINAL EIR

CEQA Guidelines Section 15132 specify that the Final EIR shall consist of:

a) Comments and recommendations received on the Draft EIR either verbatim or in summary;
b) A list of persons, organizations, and public agencies commenting on the Draft EIR;
c) The Lead Agency's responses to significant environmental points raised in the review and consultation process; and
d) Any other information added by the Lead Agency.

1.3 PUBLIC REVIEW

The Final EIR and all documents referenced in the Final EIR are available for public review at City of Mountain View's Community Development Department, City Hall, 1st Floor, 500 Castro Street, Mountain View on weekdays during normal business hours. The Final EIR is also available for review on the City's website: https://www.mountainview.gov/depts/comdev/planning/activeprojects/555_e_evelyn_avenue.asp.

SECTION 2.0 DRAFT EIR RECIPIENTS

CEQA Guidelines Section 15086 requires that a local Lead Agency consult with and request comments on the Draft EIR from Responsible Agencies (government agencies that must approve or permit some aspect of the project), trustee agencies for resources affected by the project, adjacent cities and counties, and transportation planning agencies. The following agencies, organizations and individuals received a copy of the Draft EIR from the City of Mountain View or via the State Clearinghouse (the project is State Clearinghouse #2018042038):

Public Agencies

- Department of Conservation
- Department of Fish and Wildlife, Region 3
- Office of Historic Preservation
- Department of Parks and Recreation
- Department of Water Resources
- Caltrans, District 4
- California Highway Patrol
- Department of Housing and Community Development
- Office of Emergency Services
- Regional Water Quality Control Board, Region 2;
- California Air Resources Board
- Native American Heritage Commission

Responsible Agencies

- Bay Area Air Quality Management District
- Santa Clara Valley Water District
- Cal Train-Joint Powers Board
- Union Pacific Railroad
- Santa Clara Valley Transportation Authority
- Department of Toxic Substance Control

Other Agencies

- City of Sunnyvale
- NASA Ames Research
- Mountain View/Whisman School District
- Los Altos School District
- Mountain View Library
- Sunnyvale Library
- Santa Clara Valley Habitat Agency

Businesses and Organizations

- Sylvan Park Neighborhood Association
- Lozeau Drury LLP
- Adams Broadwell Joseph & Cardozo

- Carpenter's Local 405 Counties Conference Board
- Northern California Carpenter's Regional Council
- Campaign for Jobs Local 104
- Building Industry Association of the Bay Area
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Individuals

- Ann Comey
- Steve Fitzsimons
- Kevin Johnston

SECTION 3.0 RESPONSES TO DRAFT EIR COMMENTS

In accordance with CEQA Guidelines Section 15088, this document includes written responses to comments received by the City of Mountain View on the Draft EIR for the 555 East Evelyn Avenue Residential Project. Comments are organized under headings containing the source of the letter and its date. The specific comments from each of the letters and/or emails are presented with each response to that specific comment directly following. Copies of the actual letters and emails received by the City of Mountain View are included in their entirety in Section 5.0 of this document. Comments received on the Draft EIR are listed below.

Comment Letter and Date **Page**

FEDERAL AND STATE AGENCIES

A. Governor's Office of Planning and Research (dated November 27, 2018)

Comment A.1: The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on November 26, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

> **Response A.1:** The comment does not raise any issues about the adequacy of the EIR; therefore, no further response is required.

REGIONAL AND LOCAL AGENCIES

B. Santa Clara Valley Transportation Authority (dated November 21, 2018)

Comment B.1: I'm currently reviewing the referral for 555 Evelyn and there are statements about a community benefit fee in the TIA that will be applied for transportation improvements. What is driving this fee and have there been any other discussions with people at VTA about this, is there a vision for what this will be used for, or any public engagement around the benefits?

> **Response B.1:** The Community Benefit Fee is required because the project developer is requesting an Amendment to the City's General Plan and a change to the Zoning Designation on the site. The fees for this project will be discussed at the time of City Council Action on the project and would be collected later at the Building Permit Stage. The funds collected for this project will go into a "pool", and through the City's Capital Improvement Program, the fees would be directed towards a particular project or projects by the City Council.

ORGANIZATIONS, BUSINESSES, AND INDIVIDUALS

C. Lozeau Drury, LLP (dated November 26, 2018)

Comment C.1: I am writing on behalf of Laborers International Union of North America, Local Union No. 270 and its members living in and around the City of Mountain View ("LIUNA") regarding the Draft Environmental Impact Report ("DEIR") prepared for the project known as the 555 East Evelyn Avenue Residential Project, aka SCH2018042038, including all actions related or referring to the demolition of the existing mini-storage buildings on the site and construction of a 471-unit apartment complex on 525, 555 and 769 East Evelyn Avenue addresses on APNs: 161-15-016, -004, and -005 in the City of Mountain View ("Project").

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. LIUNA requests that the Planning Division address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. Galante Vineyards v. Monterey Peninsula Water Management Dist., 60 Cal. App. 4th 1109, 1121 (1997).

> **Response C.1:** The comment does not identify any specific shortcomings of the Draft EIR analysis or mitigation measures, and no specific response is therefore possible or required. Furthermore, and contrary to the allegation in this comment, the Draft EIR complied fully with all of CEQA's requirements. The comment presents no substantial evidence to the contrary about any specific impact area. As provided in Section 15064(f)(5) of the CEQA Guidelines, unsubstantiated opinion or narrative does not constitute substantial evidence. Since the commenter does not provide substantial evidence regarding the alleged inadequacy of the Draft EIR, the claims contained in the comment letter would provide no basis for changes to the Draft EIR. The general allegations in this comment are included for consideration by the decision-makers.

D. Adams Broadwell Joseph & Cardozo (dated November 26, 2018)

Comment D.1: Mountain View Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public health and environmental impacts associated with the Project. Mountain View Residents includes the International Brotherhood of Electrical Workers Local 332, Plumbers & Steamfitters Local 393, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483, and their members and families, and other individuals that live and/or work in the City of Mountain View and Santa Clara County.

Individual members of Mountain View Residents and its member labor organizations live, work, recreate and raise their families in the City of Mountain View and Santa Clara County. They would be directly affected by the Project's adverse environmental and public health impacts. Individual members may also work on the Project itself and, therefore, will be first in line to be exposed to any health and safety hazards that exist onsite. Mountain View Residents have a strong interest in enforcing the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the City of Mountain View and Santa Clara County, and by making it less desirable for businesses to locate and people to live there.

> **Response D.1:** This introductory comment does not raise any issues about the adequacy of the EIR; therefore, no further response is required.

Comment D.2: CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in limited circumstances. The EIR is the very heart of CEQA. "The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language."

CEQA has two primary purposes. First, CEQA is designed to inform decisionmakers and the public about the potential, significant environmental effects of a project. CEQA's purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. In this respect, an EIR "protects not only the environment but also informed self-government." The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."

In furtherance of CEQA's purpose as an informational tool, the discussion of impacts in an EIR must be detailed, complete, and "reflect a good faith effort at full disclosure." CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a project. In addition, an adequate EIR must contain the facts and analysis necessary to support its conclusions.

The second purpose of CEQA is to require public agencies to avoid or reduce environmental damage when possible by requiring appropriate mitigation measures and through the consideration of environmentally superior alternatives. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to identify ways that environmental damage can be avoided or significantly reduced. To that end, if an EIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize those impacts. CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures. Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference." As the courts have explained, "a prejudicial abuse of discretion" occurs "if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process."

An EIR must fully disclose all potentially significant impacts of the project under consideration. Furthermore, when making a determination as to the significance of project impacts, the lead agency's determination must be supported by accurate scientific and factual data for each impact. An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.

Response D.2: This comment is a statement of fact regarding EIRs generally and does not raise any issues about the adequacy of the EIR; therefore, no further response is required.

Comment D.3: The DEIR states that the Project's construction and operational emissions were calculated using the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). When modeling a project's emissions, CalEEMod provides the user with recommended default values based on information such as land use type, meteorological data, project type, and typical equipment associated with the project type. The user may then replace default values when more site-specific information is available; however, any changes to CalEEMod defaults must be supported by substantial evidence. Once the model is run, CalEEMod generates "output files" for each model that reveal the parameters used in the model.

SWAPE reviewed the CalEEMod output files for the Project included in DEIR Appendix C. In reviewing the CalEEMod output files, SWAPE found several of the input parameters used to calculate the Project's emissions are inconsistent with information provided in the DEIR. As SWAPE's comments explain, these changes are not supported by substantial evidence and resulted in an underestimation of the Project's emissions.

First, the Project's CalEEMod output files show that the square footage of the proposed residential land use was substantially underestimated in the air model. The Project description states that the western building would be 267,994 square feet in size and the eastern building would be 289,090 square feet – a total of 557,084 square feet for the entire residential land use. In reviewing the CalEEMod output files, however, SWAPE found that the air model was prepared assuming a residential land use size of only 471,000 square feet, 86,084 square feet less than the actual Project size. This discrepancy is significant because the land use type and size are used by CalEEMod to determine emission factors that go into the model's calculations. For example, SWAPE explains that "the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts)." Thus, because the residential land use in the air model is smaller than the actual Project size, the construction and operational emissions are underestimated.

Response D.3: The CalEEMod default square footage of 471,000 for the proposed residential land use was utilized in the initial modeling as part of the Draft EIR. In response to this comment, the CalEEMod model runs were corrected to reflect the actual planned square footage (557,084). This change primarily affects reactive organic gas (ROG) emissions that are caused by architectural coatings. As such, there was an increase in ROG emissions for architectural coatings during construction (ROG increased by 16 percent to 15.5) pounds per average day, as shown below in Table 1.

Table 1: Construction Period Emissions				
Scenario	**ROG**	**NOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Total construction emissions	~~3.8 tons~~ 4.4 tons	5.3 tons	0.1 tons	0.1 tons
Average daily emissions [1]	**~~13.5 lbs./day~~ 15.5 lbs./day**	**18.4 lbs./day**	**0.4 lbs./day**	**0.4 lbs./day**
BAAQMD Thresholds	*54* lbs./day	*54* lbs./day	*82* lbs./day	*54* lbs./day
Exceed Threshold?	**No**	**No**	**No**	**No**
[1] Assumes 571 workdays				

Operational coatings emissions increased by 14 percent to 16.4 pounds per average day, as shown below in Table 2. This table is provided for informational purposes only. With 471 dwellings proposed, the project is below the screening size for mid-rise apartments (494 dwelling units), as shown in Table 3-1 of the 2017 BAAQMD Guidelines. Because the project would not exceed the BAAQMD screening criteria, it would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the thresholds.

Table 2: Operational Emissions				
Scenario	**ROG**	**NOx**	**PM_{10}**	**$PM_{2.5}$**
2022 Project Operational Emissions	3.4 tons	3.0 tons	2.4 tons	0.7 tons
2022 Existing Use Emissions	0.4 tons	0.2 tons	0.1 tons	<0.1 tons
Net Annual Emissions	3.0 tons	2.8 tons	2.3 tons	<0.7 tons
BAAQMD Thresholds	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Threshold?	***No***	***No***	***No***	***No***
Net Annual Emissions[1]	16.4 lbs.	15.4 lbs.	12.6 lbs.	3.6 lbs.
BAAQMD Thresholds	*54* lbs.	*54* lbs.	*82* lbs.	*54* lbs.
Exceed Threshold?	***No***	***No***	***No***	***No***

[1] Assumes 365-day operation

As shown in the tables, project emissions are still well below the BAAQMD significance thresholds. The impact conclusion within the Draft EIR is still valid. The corrected tables and text are included within this document in Section 4.0 Draft EIR Text Revisions. Revised Attachment C includes the updated CalEEMod modeling data sheets for both construction and operational conditions.

The revised calculations also show an increase in the amount of electricity that would be consumed by the project. It is estimated that approximately 1,944,450 kWh of electricity would be used annually, whereas the Draft EIR stated that 1,565,790 kWh of electricity would be consumed. Natural gas use and greenhouse gas (GHG) emissions were unchanged. The corrected text for operational electricity use is included within this document in Section 4.0 Draft EIR Text Revisions.

In reviewing the revised energy data, a miscalculation in the GHG emissions was noted. The following update (shown in Table 3) has been made to the project GHG emissions for 2030. The Draft EIR conclusion of a less than significant GHG impact remains unchanged; however, the corrected text and table reflecting the revised GHG emissions are included within this document in Section 4.0 Draft EIR Text Revisions.

Table 3: Annual Project GHG Emissions in 2030

Source Category	Proposed Project Emissions (MTCO2e)
Area	25
Energy Consumption	218[1]
Mobile	~~1,896~~ 2,368
Solid Waste Generation	109
Water Usage	50
Total:	4,733
Per Capita Emissions	**~~2.0~~ 4.2 MTCO2e/year/S.P.**
GGRP Threshold	***4.5 MTCO2e/year/S.P.***
Significant?	***No***

[1] Based on GHG emissions from natural gas only, Silicon Valley Clean Energy electricity is GHG-emission free.

Comment D.4: Second, SWAPE found that the usage hours for several pieces of construction equipment was manually reduced in the model, and are inconsistent with the daily usage hours provided by the Applicant. DEIR Appendix C includes a table listing the construction equipment to be used in the Project and the anticipated daily usage hours for all pieces of equipment. However, SWAPE found that rather than inputting the listed hours per day in the CalEEMod model as the CalEEMod User's Guide instructs, the Project emissions model was prepared using an undefined average number of usage hours that are significantly lower than the "Hours/day" values provided in the construction equipment table.33 SWAPE concludes, "[b]y utilizing artificially reduced usage hours for most of the pieces of construction equipment, the air model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance."

Because the emissions calculations included in the DEIR were prepared using assumptions that are inconsistent with the Project information provided in the DEIR, and consequently underestimate Project emissions, the City may not rely on these unsupported emissions calculations to determine the significance of the Project's air quality and public health impacts. The City lacks substantial evidence for the conclusions in the DEIR that air quality and public health impacts would be less than significant. Project emissions must be recalculated using data that is consistent with the Project description.

> **Response D.4:** The applicant provided (for each type of equipment) the hours per day, the total work days that equipment would be used, and the number of days per phase that the equipment would be used. The average hours per day over the duration of the phase was input because CalEEMod uses the number of days in the phase (not the number of days that the applicant states equipment will be used) to compute equipment usage. According to the applicant, some equipment would not be used every day during each phase. To account for the proper equipment usage estimates, the equipment hours per day is multiplied by the total works days and is then divided by the total work days per phase to compute average hours per day that the equipment would be used during a phase (e.g., grading or building construction). For these reasons, project emissions were not underestimated and conclusions in the DEIR related to air quality and public health impacts are correct and supported by data.

Comment D.5: The City evaluated the Project's public health impacts on nearby receptors by preparing a health risk assessment ("HRA") that evaluates diesel particulate matter emissions from Project construction activities. Relying on that HRA, the DEIR concludes that, with implementation of mitigation measure MM AQ-3, the Project's toxic air contaminant (TAC) emissions would result in a less than significant impact on nearby sensitive receptors. The City did not prepare an HRA to evaluate the impacts of the Project's operational emissions on those sensitive receptors. Instead, the DEIR includes a community health risk assessment of the impacts of existing sources of TAC emissions on future Project occupants, not including emissions from operation of the Project itself.

As explained more fully in the attached SWAPE comments, the City's conclusion that the Project's health risk impacts on nearby sensitive receptors would be less than significant is not supported by substantial evidence for several reasons.

First, as discussed in section III(A) above, the City's HRA was prepared using a flawed CalEEMod emissions model which underestimated Project emissions. Because Project construction emissions are underestimated, and those emissions numbers are used to prepare the construction HRA, the HRA also underestimates the construction-related health risk to nearby sensitive receptors.

> **Response D.5:** As described in Response D.3 and D.4, construction emissions were not underestimated; therefore, the construction health risk based on those emissions is also correct.

Comment D.6: Second, the DEIR's construction HRA was not prepared in accordance with relevant agency guidance for the preparation of health risk assessments, namely the Office of Environmental Health Hazards Assessment ("OEHHA") and the Bay Area Air Quality Management District ("BAAQMD"). As SWAPE explains, the City's construction HRA fails to account for the cancer risk posed to 3rd trimester gestations that will be exposed to construction-related emissions during Project construction activities. However, the OEHHA guidelines explicitly state that in order to conduct a proper cancer risk assessment, inhalation dose must be calculated beginning in the 3rd trimester of pregnancy. BAAQMD guidelines also expressly provide that all HRAs shall be conducted following the procedures set forth by OEHHA. Thus, the HRA should have employed OEHHA guidance in order to accurately assess Project impacts to all sensitive receptors. By failing to do so, the HRA is inconsistent with the guidance set forth by OEHHA and the air district with jurisdiction over the Project, BAAQMD.

> **Response D.6:** The Draft EIR computed the maximum health risk impacts from project construction based on assumed infant exposure. Active ground-disturbing construction would last less than two years, as the entire project would be complete within 30 months. The Commenter is correct that the third trimester cancer risks were not included the project cancer risk calculations because that would not be the maximum exposure condition that could occur. The reason is that for an exposure lasting two or fewer years it is more conservative to assume infant exposure for the entire period rather than a combination of an initial third trimester exposure and a portion of infant exposure. The breathing rate for third trimester exposure is lower than that of an infant, resulting in a lower dose of TAC intake, and therefore, cancer risk is lower when including a third trimester exposure for total durations of less than two years. As a result, the air quality analysis for the project is conservative in nature and adequate for the purposes of CEQA.

Comment D.7: Finally, SWAPE explains that the DEIR's omission of a quantified HRA for the Project's operational emissions is inconsistent with the most recent guidance published by OEHHA, therefore, the City's conclusion that public health risks to nearby receptors would be less than significant unsupported. OEHHA's 2015 guidelines describe the types of projects that warrant preparation of a health risk assessment. The Guidelines recommend that exposure from projects lasting more than 6 months should be evaluated for the duration of the project.

Here, once the Project is operational, it will generate vehicle trips, which generate additional exhaust emissions, and will therefore continue to expose nearby receptors to emissions of TACs for the duration of the Project. These emissions will be in addition to the emission sources in the Project area identified in the community health risk assessment. Exposure to traffic-related emissions has been implicated with a variety of cancer as well as non-cancer health risks including acute and chronic respiratory disease, including reduced lung function and increased asthma hospitalizations and heart attacks, as well as premature death in elderly individuals with heart disease. While an expected duration was not provided in this case, it can reasonably be assumed the Project will operate for at least 30 years – much longer than the 6-month minimum in the OEHHA guidelines. For this reason, SWAPE concludes that the health risks from Project operations should have also been evaluated in the HRA.

> **Response D.7:** The project is not a new TAC source since it would not include diesel truck traffic or stationary sources of emissions (e.g., diesel-powered generators). The proposed project is primarily a residential project and would result in minimal diesel vehicle trips (i.e., delivery trucks and maintenance vehicles). The automobile traffic generated by the project would not result in significant health risks. BAAQMD recommends considering roadways that have greater than 10,000 average daily vehicles per day when assessing roadway screening risk levels (refer to BAAQMD CEQA Air Quality Guidelines, Section 5, page 5-11). The project would generate 2,704 net new vehicle trips per day spread out over many roadways. Therefore, operational emissions resulting from project vehicular travel would not have the potential to result in a significant community risk impact at any one receptor.

While diesel particulate matter (DPM) is the primary cancer risk in the Bay Area (making roughly 85 percent of the cancer risk from air toxics in the region), diesel traffic accounts for only about six percent of the region-wide travel.[1,2] As a result, BAAQMD's concern for construction health risk impacts is associated with DPM emissions (refer to BAAQMD CEQA Air Quality Guidelines, Section 8.3, page 8-7).

One conservative method to compute the effect of local traffic generated by the project would be through use of the BAAQMD's Roadway Screening Risk Calculator with input of the project's daily traffic on East Evelyn Avenue. This would be the roadway closest to sensitive receptors that carries the most project traffic. Use of this calculator with project traffic (i.e., 2,163 daily trips on East Evelyn west of the project and 541 trips east of the project) would result in cancer risk of less than one chance per million and annual PM2.5 concentrations of $0.03\mu g/m^3$. This impact would be far less at the receptor most affected by construction because that receptor is not near a roadway where project traffic would occur. These calculations are included with this Final EIR in revised Appendix C for informational purposes.

OEHHA's Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments is specifically referred to as the Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The guidance manual was developed by OEHHA, in conjunction with the California Air Resources Board (CARB) for use in implementing the Air Toxics Hot Spots Program. CARB states that the Air Toxics Hot Spots Information and Assessment Act requires stationary sources to report the types and quantities of certain substances routinely released into the air. The Air Toxics Hot Spots Information and Assessment Act specifically defines a facility as follows:

44304. "Facility" means every structure, appurtenance, installation, and improvement on land which is associated with a source of air releases or potential air releases of a hazardous material.

ARB specifically notes that applicability for the HRA assessment is based on the following types of facilities.

- Facilities that emit >10 tons per year of Total Organic Gasses (TOG), Particulate Matter (PM), Nitrogen Oxides (NOx), or Sulfur Oxides (SOx)
- Facilities that emit >5 tons/year of any Federal Hazardous Air Pollutant
- Facilities that emit <10 tons/year like gas stations, dry cleaners, hazardous waste incinerators, metal platers using cadmium or chromium, waste water treatment facilities, etc.

The PM10 emissions identified in the air quality analysis for the Draft EIR would result from passenger vehicles entering and exiting the site. These emissions are not stationary and are not considered a source of TACs as defined by BAAQMD. As stated, the project would not

[1] CARB. EMFAC2017 for San Francisco Bay Area in year 2018. Accessed August 28, 2018. https://www.arb.ca.gov/emfac/2017/.
[2] BAAQMD. 2016. *Planning Healthy Places A Guidebook for Addressing Local Sources of Air Pollutants in Community Planning*. May.

pose a health risk to adjacent and nearby sensitive receptors. For these reasons, an operational health risk assessment was not required as part of the Draft EIR.

Comment D.8: In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, SWAPE prepared a screening-level operational health risk assessment. The results of SWAPE's HRA provide substantial evidence that the Project's operational emissions of diesel particulate matter may result in a significant health risk impact that was not disclosed in the DEIR.

SWAPE used the AERSCREEN model for its screening level HRA. AERSCREEN is a screening-level dispersion model recommended by OEHHA and the California Air Pollution Control Officers Association guidance as the appropriate dispersion model for level 2 health risk screening assessments. The operational emissions estimates used in SWAPE's health risk screening assessment are based on SWAPE's updated CalEEMod air model for the Project, which corrected the inaccuracies in the City's model outlined in Section III(A) above. Consistent with the recommendations set forth by OEHHA, SWAPE used a residential exposure duration of 30 years, starting from the last .25 years of the infant stage of life, immediately after the 24-month construction period is completed. SWAPE's assumptions and formulas are explained more fully in the attached letter.

SWAPE's health risk analysis found that the excess cancer risk to adults, children, and infants at a sensitive receptor located approximately 25 meters away in the adjacent residential apartments, over the course of Project operation, are approximately 8.5, 76, and 8.6 in one million, respectively. The total (i.e., lifetime) excess operational cancer risk over the course of Project operation (28.25 years) is approximately 93 in one million. As SWAPE's analysis demonstrates, the child and lifetime cancer risk from Project operations alone greatly exceeds the BAAQMD threshold of 10 in one million.

Furthermore, as SWAPE explains, OEHHA guidance provides that when calculating the total cancer risk associated with a project, the excess cancer risk is calculated separately for each age group and phase then summed. Thus, per OEHAA guidance, combined construction and operational excess cancer risk should be evaluated to make a determination of significance at a sensitive receptor location. Even assuming the DEIR's estimated construction cancer risk estimate of 3.5 in one million is correct, the combined cancer risk for construction and operation of the proposed Project would be approximately 96.5 in one million. Thus, SWAPE concludes, "it can be assumed that with updated construction HRA calculations, the Project's lifetime cancer risk estimate would far exceed the BAAQMD's significance threshold of 10 in one million."

As SWAPE notes, screening level health risk assessments are known to be more conservative and are aimed at health protection. However, the purpose of a screening-level health risk assessment is to determine whether a more refined HRA needs to be conducted. SWAPE's analysis demonstrates that the more refined HRA needs to be conducted in this case in order to properly disclose, analyze, and mitigate the Project's potentially significant public health impacts. The City must perform this analysis and re-circulate the DEIR for public review and comment.

Response D.8: See Response to Comment D.7. The commenter provides an erroneous assessment of health risks that uses incorrect emission rates, incorrectly places those emissions only at the project site and then uses a screening model to exaggerate the impacts.

First, the commenter uses exhaust PM10 emissions rates from project traffic predicted using CalEEMod to represent diesel particulate matter emissions that they attribute to the project. This is incorrect because most project traffic is not diesel powered. It is wrong to conclude the PM10 emissions are diesel particulate matter. Additionally, project traffic would be spread over a distance approximately 7 to 12 miles, rather than concentrated at only the project site as characterized by the commenter. Finally, AERSCREEN is a screening model that is recommended by U.S. Environmental Protection Agency (EPA) to identify the potential for impacts and not used to quantify significant impacts. Lastly, this model is inappropriate for modeling traffic sources, as further described below.

The commenter's assumptions for their own assessment demonstrate that the analysis they recommend is intended for stationary sources. Specifically, the comment above states that "Operational activity was simulated as a six-acre rectangular area source in AERSCREEN, with dimensions of 188 meters by 130 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release." Based on this information the commenter is assuming a fixed source of emissions with equipment exhaust stacks and the regular use of heavy-duty vehicles on-site. Whereas the commenter also clearly notes that the PM_{10} emissions cited were from passenger vehicles (see Comment D.7).

The project does not propose significant operational sources of TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, chrome platers, dry cleaners, or gasoline stations. The project would generate passenger vehicle traffic, which is not a substantial TAC source. Only diesel delivery or landscape service trucks would be considered an operational source of TACs, of which the project would generate a small amount. Because passenger vehicles are not a significant source of TACs, a quantitative operational TAC impact assessment was not completed for the Draft EIR, consistent with City practice in its environmental documents. This is also consistent with BAAQMD guidance, which states that passenger vehicles are not a substantial source of TACs.

Given the lack of TAC emission sources included in the project, the commenter's assessment has been inappropriately applied to the project and inaccurately concluded that the project would result in significant operational health risk impacts. The information provided by the commenter is not substantial evidence of an actual project impact. Operational health risk impacts at adjacent sensitive receptors would be less than significant. No recirculation of the DEIR is required.

Comment D.9: The DEIR concludes that GHG impacts would be less than significant because the Project would include several measures consistent with the BAAQMD's 2017 Clean Air Plan and the City's Greenhouse Gas Reduction Plan ("GGRP"). According to the DEIR, "the proposed project would implement relevant measures from the 2017 CAP and the City's GGRP; therefore, it would not conflict an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs." As SWAPE explains, however, the DEIR fails to adequately demonstrate compliance with the City's GGRP, namely the requirement to prepare a transportation demand management plan at the time of Project review. Instead, the DEIR indicates a transportation demand management plan will be developed and implemented at a later date, deferring formulation of a specific TDM plan.

Because a TDM has not been submitted, the City lacks substantial evidence for the determination that the Project is consistent with the GGRP and that impacts would be less than significant.

Mandatory Measure T-1.1 of the GGRP includes a requirement that certain development projects implement a Transportation Demand Management plan ("TDM"). In order to ensure that the City's GGRP measures translate into on-the ground results, the GGRP provides that projects subject to this requirement must "describe how each measure would be integrated into the development in its application materials and environmental documentation." Additionally, the City's GGRP Measure T-1.1 explicitly requires that projects develop transportation demand management plans at the time of environmental review. The GGRP states that "at the time of project review, all subject development will submit to the City a qualified Transportation Demand Management Plan that demonstrates compliance with the required TDM performance standard."

Here, the DEIR does not include a transportation demand management plan or indicate that such a plan has been submitted for the Project. Rather, the DEIR indicates a TDM plan will be implemented by the Project and outlines a number of potential measures that could be incorporated in that future plan. Because development of the plan is deferred, however, it is unclear how the Project Applicant will achieve compliance with the GGRP's Mandatory Measure T-1.1, or whether the measure will be implemented at all. The public and decisionmakers are also denied an opportunity to review and comment on the Project's transportation demand management plan and ensure the plan is sufficiently rigorous to reduce GHG emissions in conformance with the City's reduction goals.

Response D.9: Measure T-1.1 of the GGRP states:

> *The General Plan Mobility Element calls for the establishment of transportation demand management (TDM) requirements for new development and significant expansion and rehabilitation projects.*
>
> *At the time of project review, all subject development will submit to the City a qualified Transportation Demand Management Plan that demonstrates compliance with the required TDM performance standard.*
>
> *The City anticipates that Transportation Demand Management Associations will facilitate TDM plan and report development.*

The project developer has submitted a list of proposed TDM Measures (dated December 11, 2018), which are included in the Final EIR as Appendix E Commute Alternatives Program to the Transportation Impact Analysis, as described in Section 4.0 Draft EIR Text Revisions. Additionally, the developer will be required to participate in the City Transportation Management Association (TMA) as a condition of approval. A five percent reduction has been included in the trip generation estimates for the project, consistent with Santa Clara Valley Transportation Authority (VTA) guidelines.

Comment D.10: In addition to the City's own GGRP requirements, CEQA requires that when performing a qualitative analysis of Project's consistency with measures aimed at reducing GHG emissions, the lead agency must bridge the analytical gap between compliance with applicable programs and the ultimate conclusion regarding project impacts. Specifically, in the context of GHG analysis, the CEQA Guidelines provide that the lead agency must identify requirements of the plans or programs that are applicable to a project, and explain how implementing those requirements would ensure the project's incremental contribution to GHG impacts would be less than significant.

In this case, while the City has taken the first step of identifying the requirements of the GGRP that are applicable to the Project, it has failed to demonstrate how the Project will actually comply with those requirements, other than stating it will. The DEIR's analysis of consistency with the GGRP fails to satisfy the requirements of CEQA and the GGRP itself. The City must require submittal of a definite and enforceable transportation demand management plan and must include that plan in a recirculated DEIR for public review and comment.

> **Response D.10:** As described in Response D.9, the project has provided a list of TDM measures that will be incorporated into the project to meet the five percent TDM trip-reduction specified in the project's Transportation Impact Assessment. The applicant list of TDM measures has been included in Section 4.0 Draft EIR Text Revisions as Appendix E Commute Alternatives Program. The five percent reduction is consistent with VTA guidance. Because the impact would remain less than significant, recirculation of the DEIR is not required.

Comment D.11: The City's energy use impact analysis in the DEIR fails to comply with CEQA in several ways. First, the City failed to compare the Project's energy use to energy use associated with the existing environmental setting – a vacant lot and mini storage facility. Before the impacts of a project can be assessed and mitigation measures considered, an EIR must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined. It is a central concept of CEQA, widely accepted by the courts, that the significance of a project's impacts cannot be measured unless the DEIR first establishes the actual physical conditions on the property.

> **Response D.11:** The Draft EIR utilized a conservative baseline for the energy analysis and assumed no energy (in the form of electricity and natural gas) is used by the vacant structures on-site or by vehicles (gasoline) traveling to and from the site. This is an appropriate and realistic baseline given the current use and occupancy status of the site. Subtracting the estimated energy use of a reoccupied site would be a supported CEQA baseline based on case law; however, a more conservative baseline (that the site uses zero energy) was used to simplify the energy analysis and give a more accurate picture to the reader of the energy that would be used by the proposed project.

Comment D.12: In this case, the City repeatedly states in the DEIR that the Project's energy use is only a small percentage of the overall or projected energy use in the region or state, rather than greater, equal to or less than energy use from the existing setting. For example, the DEIR states:

- [T]he proposed project's increase in annual electricity use, would not result in a significant increase in demand on electrical energy resources in relation to projected supply statewide.

- Based on the relatively small increase in natural gas demand from the project (4,069,180 kBtu per year), and compared to the growth trends in natural gas supply and the existing available supply in California, the proposed project would not result in a significant increase in natural gas demand relative to projected supply.
- Project trips would increase gasoline use at the site by approximately 291,213 gallons of gasoline per year. This increase is small, however, when compared to the annual statewide sales of 15 billion gallons.

The City's comparison of the Project's energy usage to the projected energy use or capacity of the entire State of California is uninformative to the public, improperly minimizes the Project's energy use impacts, and fails to comply with CEQA's requirement to evaluate impacts against the existing baseline. CEQA requires the City to acknowledge, disclose and mitigate the increased energy use compared to the energy use in the existing environmental setting, which in this case is a largely vacant lot with a mini storage facility that the City acknowledges does not consume energy.

> **Response D.12:** As described in response D.11, impacts of the project were calculated against a conservative baseline condition for the existing site of no energy use. Appendix F does not specify what capacity to compare energy use against (city, regional, state). Electricity is generally regulated at a state level by the California Independent System Operator and natural gas is regulated by the California Public Utilities Commissions. These state entities have available data with regard to available generation and supply, hence they were used in the Draft EIR analysis. Gasoline markets operate on an even larger countrywide or even worldwide supply market basis. The Draft EIR shows there is available electricity, natural gas, and gasoline (which is distributed and consumed by local jurisdictions) for the project and that the project would represent an incremental increase in demand. In addition, the commenter does not suggest a viable comparison to use instead of state energy supplies. Thus, the Draft EIR analysis is adequate.

Comment D.13: Second, the City failed to compare the Project energy use to CEQA's thresholds for measuring wasteful, uneconomic, inefficient or unnecessary consumption of energy in Appendix F and to the more recent threshold set forth in Governor Brown's Executive Order B-55-18. Under CEQA, wasteful, uneconomic, inefficient or unnecessary consumption of energy means exceeding a threshold of significance in the energy use impact areas identified in Appendix F. This includes asking whether the Project's energy requirements by amount and fuel type during construction, operation, maintenance and/or removal and from materials are significant; whether the Project will comply with existing energy standards; whether the Project will have a significant effect on energy resources; and whether the Project will have significant transportation energy use requirements, among other questions. For each of these questions, CEQA Guidelines Appendix F asks whether the project decreases overall per capita energy consumption, decreases reliance on fossil fuels, and increases reliance on renewable energy sources. Appendix F explains that these are the means to ensure wise and efficient use of energy. If a project does not decrease overall per capita energy consumption, decrease reliance on fossil fuels, and increase reliance on renewable energy sources, results in a wasteful, inefficient and unnecessary consumption of energy.

> **Response D.13:** The project does not quantify construction energy use because estimating diesel and gasoline consumption for vehicles, equipment, and generators; and electricity use for tools would be overly speculative. In addition, construction energy usage is temporary.

There is no currently acceptable standard model or accurate way to predict construction energy usage (in terms of fuel or electricity usage).

The GHG emissions for project construction were quantified using CalEEMod and disclosed in the Draft EIR, which can provide an indication of energy usage during the construction period. The project would generate a total of approximately 1,497 MTCO2e during the 30-month construction period, which is (on an annual basis) approximately 25 percent of the project operational GHG emissions. One can assume on a qualitative basis that energy use would also be about 25 percent of annual operational energy use based on the concept that GHG emissions occur primarily as a result of energy use. Thus, the conclusion in the Draft EIR remains accurate (less than significant impact), in that the project would not exceed available supplies or wastefully use energy during construction.

Comment D.14: Furthermore, the DEIR contains no analysis of whether the Project's energy use is carbon neutral consistent with Governor Brown's Executive Order B-55-18. The question is, for example, whether the project's energy requirements by amount and fuel type during construction, operation, maintenance and/or removal and transportation is carbon neutral. This analysis of carbon neutrality is consistent with Appendix F's explanation of the means to ensure wise and efficient use of energy. The DEIR here contains no such analyses.

Response D.14: Executive Order B-55-18 establishes a statewide goal of carbon neutrality by the year 2045. The order directs CARB to work with other state agencies to identify and recommend measures to achieve those goals. It will require large investments across several sectors—energy, transportation, industrial, commercial and residential buildings, agriculture, and various forms of sequestration. Additional action by the legislature will be required to legally implement the executive order. Executive Order B-55-18 was signed in September of 2018, which is approximately six months after the Notice of Preparation (NOP) was released so it was not a part of the regulatory framework for the project. Compliance with Executive Order B-55-18 is not required to be discussed or analyzed within the Draft EIR.

Comment D.15: Third, the City argues construction activities would not use fuel or energy in a wasteful manner because of the added expenses associated with renting construction equipment, as well as mitigation measures requiring the use of equipment with reduced emissions. However, the City never discloses the anticipated energy usage for Project construction in the first place, or how much the mitigation measures are expected to reduce energy demand. As the Courts have stated, "CEQA EIR requirements are not satisfied by saying an environmental impact is something less than some previously unknown amount."

Response D.15: Please refer to Response D.13.

Comment D.16: Fourth, the City failed to evaluate whether renewable energy resources might be available or appropriate and should be incorporated into the Project, as required by CEQA. The DEIR acknowledges that "[e]fficiency and production capabilities would help meet increased electricity demand in the future, such as improving energy efficiency in existing and future buildings, establishing energy efficiency targets, inclusion of microgrids and zero-net energy buildings, and integrating renewable technologies." However, rather than evaluating whether renewable energy resources or the technologies listed can or should be incorporated in the Project, the DEIR effectively concludes the Project's electricity demand would not be significant because other projects will be more efficient in the future. The City's analysis is a far cry from evaluating whether renewable energy resources should be incorporated into the Project and does not ensure that the Project's energy use would be wise and efficient.

> **Response D.16:** The project would obtain energy from Silicon Valley Clean Energy (SVCE) which already obtains at least 50 percent of its electricity from renewable sources and is 100 percent GHG emission free. The incorporation of renewable energy sources in the project would, therefore, not result in any significant carbon reductions or increase in energy security as the power would come from the same sources.

Comment D.17: In sum, the City's analysis of the Project's energy usage fails to comply with the requirements of CEQA. The City's conclusion that the Project's energy usage would be less than significant is not supported by substantial evidence. Comparing the energy usage of a single residential Project to statewide energy consumption and concluding usage would be insignificant is an apples-to-oranges comparison which prevents the public from meaningfully evaluating the Project's energy usage and the opportunity for greater energy savings.

> **Response D.17:** This is a conclusion statement to the comment letter. Please refer to Responses D.11 through D.16.

Comment D.18: The DEIR Fails to Adequately Disclose, Analyze, and Mitigate Impacts from Hazardous Soil Vapors on Public Health. In the DEIR Hazards and Hazardous Materials section, under the heading "3.9.4 Issues Not Covered Under CEQA," the City erroneously asserts that the potential for the public, including future residents, to be effected by inhalation of contaminated soil vapors is not a Project impact that the City must analyze under CEQA. Citing the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District*, the City argues in the DEIR that CEQA does not require agencies to analyze and determine the significance of impacts of existing environmental conditions on a project's future users. The DEIR implies that impacts from hazardous soil vapors are within this category of impacts not covered by CEQA.

Contrary to the City's claim, the Supreme Court's opinion in *CBIA v. BAAQMD* demonstrates that the potential impacts of contaminated soil vapors on future Project users is squarely within the scope of CEQA and must be evaluated in the DEIR. As the Court explained in that case, while CEQA generally does not require an analysis of how existing environmental conditions will impact a Project's future users, CEQA does call upon agencies to evaluate a project's "potentially significant exacerbating effects on existing environmental hazards – effects that arise because the project brings 'development and people into the area affected.'" The analysis of a project's potential to exacerbate existing conditions is a consequence of CEQA's core requirement that agencies evaluate a project's impact on the environment."

The Court's illustration of this principle in CBIA is particularly relevant here:

> Suppose that an agency wants to locate a project next to the site of a long-abandoned gas station. For years, that station pumped gasoline containing methyl tertiary-butyl ether (MTBE), an additive—now banned by California—that can seep into soil and groundwater.

> Without any additional development in the area, the MTBE might well remain locked in place, an existing condition whose risks—most notably the contamination of the drinking water supply—are limited to the gas station site and its immediate environs. But by virtue of its proposed location, the project threatens to disperse the settled MTBE and thus exacerbate the existing contamination. The agency would have to evaluate the existing condition—here, the presence of MTBE in the soil—as part of its environmental review. Because this type of inquiry still focuses on the project's impacts on the environment—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole.

Like the above illustration, construction of the Project here has the potential to disturb contaminated soils at the Project site. While the potential effects of the contaminated soil may go unrealized in the absence of the Project, by virtue of the Project's location and type, the Project threatens to disperse the contaminants and expose the public, including future occupants, to hazardous substances, whether through the underground parking structure or residential units. Indeed, the DEIR implicitly recognizes this risk through its discussion of the potential for soil vapor impacts and the incorporation of a condition of approval requiring the Applicant to prepare a vapor intrusion mitigation strategy.

Due to the Project's potential to exacerbate the effects of existing contamination at the Project and, as a result, potentially expose the public, including future residents, to hazardous soil vapors, CEQA requires that the City disclose this impact, determine the significance of the impact, and, if necessary, identify and incorporate all feasible mitigation.

> **Response D.18:** While the City disagrees with the commenter's classification of the impact. The project would not exacerbate the existing groundwater contamination on-site. With regard to potential contaminant dispersement or other off-site impacts, the project is subject to state programs, regulations, and conditions to mitigate the release of hazardous materials or soil vapor. Specifically, MM HAZ-2.1 through MM HAZ-2.3 of the Draft EIR (as described on page 86) require the project to implement a Remedial Action Plan and Soil Management Plan, with oversight by the City and the Regional Water Quality Control Board (RWQCB). In addition, the project would be subject to a condition of approval (page 93) requiring the project to implement a Vapor Intrusion Mitigation System (VIMS), consistent with the RWQCB Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region (2014).
>
> VIMS are an engineering control to manage the effects of residual contaminants. VIMS may also be used as a precautionary measure even if not required under current circumstances to reduce the potential for exposure and liability should conditions change in the future. A typical VIM system consists of a vapor barrier and a sub-barrier vapor venting system to prevent soil gas from entering a building and posing a risk to the occupants. Because such systems are not fail-safe due to potential construction or renovation damage or operating errors, the importance of post-construction monitoring (e.g., indoor air or subslab soil gas) and reporting is critical to demonstrate effectiveness.

> Consistent with these requirements, VIMS engineering controls would be installed in the proposed site structures. The proposed VIMS engineering controls and an operations and maintenance (O&M) plan would be submitted to the RWQCB for review and approval. The O&M plan would be prepared in accordance with the criteria included in the Department of Toxic Substances Control (DTSC) Vapor Intrusion Advisory (2011) and previously described RWQCB interim framework, which includes a requirement for post-construction and pre-occupancy indoor air sampling. A Vapor Mitigation Completion Report must be submitted to the RWQCB for approval prior to the City approving occupancy permits.
>
> Regardless of how the impact is classified under CEQA, the project would not expose future residents to hazardous soil vapors. The impact (as stated in the Draft EIR) would remain less than significant with compliance with the mandatory DTDC and RWQCB oversight requirements, identified mitigation measures, and City condition of approval.

Comment D.19: In addition to the City's incorrect assertion that the potential impact of hazardous substances in the Project site soil on the public, including future residents, is not an impact covered by CEQA, the City's conclusion that the Project would be consistent with General Plan Policy INC 18.1 is not supported by substantial evidence.

General Plan Policy INC 18.1 states projects must be designed to "Protect human and environmental health from environmental contamination." The City argues that the Project would be consistent with General Plan Policy INC 18.1 because the City added a condition of approval requiring the applicant to develop a Vapor Intrusion Mitigation System. According to the DEIR, the following condition of approval will be implemented as part of the Project:

> VAPOR INTRUSION MITIGATION SYSTEM: The project applicant shall obtain from the Water Board a letter confirming that the 2014 RAP is still valid and/or the project applicant shall update the RAP to current standards, including updated standards related to indoor TCE exposure. The project applicant shall incorporate Vapor Intrusion Mitigation System drawings and specifications into the City building permit plans. Following completion of construction, the project applicant shall prepare a Vapor Mitigation Completion report documenting installation of the vapor control measures and specifying monitoring requirements for the system. These documents should be provided to the RWQCB for review and approval prior to City issuance of occupancy permits for the project. In addition, the project applicant and/or subsequent site owners and occupants shall provide access for future indoor air and soil vapor monitoring activities and shall not interfere with the implementation of remedies selected by the RWQCB and responsible parties. These requirements shall be specified in Covenants, Conditions and Restrictions that shall run with the property.

This condition of approval, however, fails to provide any details of what the VIMS must include, lacks objective performance standards for evaluating the effectiveness of the VIMS, and fails to specify what actions must be taken in the event monitoring reveals adverse impacts. Rather, it defers development of a mitigation system to a later date, after the public environmental review process. Moreover, under the language of the condition, it is sufficient that any vapor mitigation system is installed so long as post-installation documentation is provided to the RWQCB, and some undefined monitoring occurs.

The City's conclusion that the Project would be consistent with the requirements of General Plan Policy INC 18.1 because of the VIMS requirement is not supported by substantial evidence. Even if the City were correct that this is an issue area not covered by CEQA, for the same reasons agencies may not defer development of mitigation measures for a project's potentially significant impacts, the City cannot conclude that the proposed VIMS condition of approval would ensure future users of the Project will be protected from contamination, as required by General Plan Policy INC 18.1. There is no requirement that the VIMS achieve any particular outcome, nor that particular steps be taken in the event monitoring reveals a hazard. The proposed approach also leaves the development of the plan to the Applicant and RWQCB, without specific direction, and prevents the public and decisionmakers from participating in review of the mitigation system and its effectiveness.

The City must revise the condition of approval ensure implementation of a VIMS that will protect the public, including future users of the Project, from the Project's exacerbation of hazardous soil vapors. As currently proposed, the condition of approval fails to achieve this goal, and is therefore inconsistent with the requirements of the City's General Plan pertaining to human health and contamination.

Response D.19: Please refer to Response D.18.

Comment D.20: For all of the forgoing reasons, the City must prepare and recirculate a revised DEIR in order to adequately disclose, analyze, and mitigate Project impacts to air quality, public health, and GHGs, and to properly disclose and evaluate the impacts of hazardous soil contaminants on the public, including future residents, before considering the entitlements for the proposed Project.

Response D.20: This is a conclusion statement to the comment letter. Please refer to Responses D.3 through D.19.

Attachment 1 – SWAPE Comment Letter

Comment D.21: We have reviewed the October 2018 Draft Environmental Impact Report (DEIR) for the 555 East Evelyn Avenue Residential Project ("Project") located in the City of Mountain View ("City"). The Project proposes to demolish a 1.9-acre mini-storage facility in order to construct a two-building 471-unit apartment complex with 668 below-grade parking spaces. The Project also proposes to construct a 0.68- acre public park on the site.

Our review concludes that the DEIR fails to adequately evaluate the Project's Air Quality and Greenhouse Gas (GHG) impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated DEIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and GHG impacts the Project may have on the surrounding environment.

Air Quality - Unsubstantiated Input Parameters Used to Estimate Project Emissions: The DEIR relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("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 can change the default values and input project-specific values, but the California

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

When we reviewed the Project's CalEEMod output files, provided as Attachment 2 to the DEIR's Air Quality and Greenhouse Gas Assessment, we found that several of the values inputted into the model were not consistent with information disclosed in the DEIR. As a result, the Project's construction and operational emissions are underestimated. An updated DEIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Use of Incorrect Land Use Size: The Project's CalEEMod output files demonstrates that the square footage of the proposed residential land use was underestimated within the air model. The Project description states that the "western building would be 267,994 square feet in size" and the "eastern building would be 289,090 square feet in size" totaling 557,084 square feet for the residential land use (p. 4). Review of the CalEEMod output files, however, demonstrates that the air model utilized a residential land use size of only 471,000 square feet (see excerpt below) (Appendix C, pp. 35).

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	471.00	Dwelling Unit	5.00	471,000.00	1347
City Park	1.00	Acre	1.00	43,560.00	0
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0

As you can see in the excerpt above, the Project Applicant underestimates the total floor surface area of the residential land use by approximately 86,084 square feet. The land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations.4 For example, the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts). Thus, by underestimating the size of the residential land use within the air model, the construction and operational emissions generated by the proposed residential buildings are underestimated and should not be relied upon to determine Project significance.

Response D.21: Please refer to Response D.3.

<u>Comment D.22:</u> Use of Incorrect Off-Road Construction Equipment Usage Hours: Review of the Project's CalEEMod output files reveals that the Project Applicant manually decreased the construction equipment usage hours for several pieces of equipment anticipated for use during Project construction. The altered usage hours inputted for the off-road equipment in the Project's CalEEMod model, however, are underestimated and are inconsistent with information provided within the DEIR, resulting in an underestimation of the Project's construction-related emissions.

The Project Applicant manually reduced the following usage hours for several pieces of off-road construction equipment (see excerpts below) (Appendix C, pp. 37, pp. 41-42).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	10	2.00	78	0.48
Demolition	Excavators	2	6.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	5.00	158	0.38
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	1	1.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	1	5.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Grading	Graders	2	3.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	1	1.00	132	0.36
Demolition	Tractors/Loaders/Backhoes	1	3.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	1.00	46	0.45
Architectural Coating	Aerial Lifts	1	1.00	63	0.31

However, the construction detail table accompanying the CalEEMod output files specifies the Project's anticipated daily usage hours for all pieces of equipment (Appendix C, pp. 138).

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day
	Demolition	Start Date:	1/1/2020	Total phase:	43	
		End Date:	3/1/2020			
	Concrete/Industrial Saws	81	0.73	0		0
2	Excavators	162	0.38	6	40	6
0	Rubber-Tired Dozers	255	0.4			0
1	Tractors/Loaders/Backhoes	97	0.37	6	20	3
	Site Preperation	Start Date:		Total phase:	0	
		End Date:				
	Graders	174	0.41			
	Rubber Tired Dozers	255	0.4			
	Tractors/Loaders/Backhoes	97	0.37			
	Grading / Excavation	Start Date:	3/1/2020	Total phase:	66	
		End Date:	6/1/2020			
	Scrapers	361	0.48			0
1	Excavators	162	0.38	6	60	5
2	Graders	174	0.41	6	30	3
1	Rubber Tired Dozers	255	0.4	6	60	5
	Tractors/Loaders/Backhoes	97	0.37			0
	Other Equipment?					
	Trenching	Start Date:	11/1/2020	Total phase:	45	
		End Date:	1/1/2021			
2	Tractor/Loader/Backhoe	97	0.37	6	60	8
0	Excavators	162	0.38	6	60	8
	Other Equipment?					
	Building - Exterior	Start Date:	3/1/2021	Total phase:	198	
		End Date:	12/1/2021			
1	Cranes	226	0.29	4	20	0
2	Forklifts	89	0.2	6	264	8
NO	Generator Sets	84	0.74	Assume Temp Power		
1	Tractors/Loaders/Backhoes	97	0.37	5	20	1
2	Welders	46	0.45	6	20	1
	Other Equipment?					0
Building - Interior/Architectural Coating		Start Date:	1/1/2021	Total phase:	196	
		End Date:	10/1/2021			
10	Air Compressors	78	0.48	6	50	2
1	Aerial Lift	62	0.31	4	20	0
	Other Equipment?					
	Paving	Start Date:	12/1/2021	Total phase:	23	
		Start Date:	12/31/2021			
	Cement and Mortar Mixers	9	0.56			0
1	Pavers	125	0.42	6	5	1
1	Paving Equipment	130	0.36	6	5	1
	Rollers	80	0.38			0
	Tractors/Loaders/Backhoes	97	0.37			0
	Other Equipment?					

A comparison of the CalEEMod output files and the above construction detail table reveals that the Project Applicant inputted the average number of usage hours per day ("Avg. Hours per day") values provided in the table into the CalEEMod model. This is incorrect, as the CalEEMod User's Guide states that when inputting project-specific information regarding construction equipment (emphasis added), the user "enters the Equipment Type, Number of Units, and Hours per Day for each piece of equipment that will be used in any phase" into the CalEEMod model. Therefore, the Project Applicant should have inputted the "Hours/day" values provided in the above construction detail table, rather than the average usage hours, into the CalEEMod model to accurately reflect the number of hours per day that each piece of equipment will be in use. By utilizing artificially reduced usage hours for most of the pieces of construction equipment, the air model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance

Response D.22: Please refer to Response D.4.

Comment D.23: Updated Air Modeling Input Parameters - In an effort to accurately determine the Project's construction and operational emissions, we prepared an updated CalEEMod model using the most recent CalEEMod version, CalEEMod.2016.3.2, that includes more site-specific information and corrected input parameters. In our updated model for the Project's proposed land uses, we inputted a square footage of 557,084 square feet for the residential land use size to reflect the DEIR's Project description. Additionally, we inputted corrected equipment usage hours to be consistent with the construction detail table provided in Appendix C.

The estimated particulate matter (PM) emissions calculated by our updated air model were used to calculate the health risk impact associated with Project operation, as discussed in the section below.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated: The Project Applicant conducted a construction health risk assessment (HRA) and concludes that construction of the Project would pose a maximum cancer risk of 3.5 in one million to nearby sensitive receptors, which is less than the Bay Area Air Quality Management District's (BAAQMD) significance threshold of ten in one million (p. 41). As a result, the DEIR claims that the proposed Project would result in a less than significant health risk impact with mitigation (p. 41). This conclusion, however, is incorrect for several reasons. First, as discussed above, the DEIR relies upon a flawed air model to estimate the construction-related health risk posed to the nearest sensitive receptor. Second, the DEIR's construction HRA, provided as Attachment 4 to Appendix C, fails to account for the cancer risk posed to 3rd trimester gestations that will be exposed to construction-related emissions during Project activity (Appendix C, pp. 104). Third, the Project Applicant incorrectly claims that the Project's health risk impact would be less than significant without conducting an operational HRA. As a result, an updated DEIR should be prepared which correctly and adequately assesses and mitigates the proposed Project's health risk impacts to nearby sensitive receptors.

Flawed Analysis of Construction-Related Health Risk: The Air Quality and GHG Assessment, prepared by Illingworth & Rodkin, Inc., evaluates whether mobile source diesel particulate matter (DPM) emissions resulting from Project construction would pose a significant health risk to nearby sensitive receptors (Appendix C, Attachment 4). According to the DEIR, the calculated cancer risk to nearby infant receptors from exposure to DPM emissions during Project construction would be 3.5 in one million (see excerpt below) (Appendix C, pp. 106).

Maximum Impacts at Construction MEI Location - With Mitigation

Emissions Year	Maximum Concentrations: Exhaust PM10/DPM ($\mu g/m^3$)	Maximum Concentrations: Fugitive PM2.5 ($\mu g/m^3$)	Cancer Risk (per million): Infant	Cancer Risk (per million): Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration ($\mu g/m^3$)
2020	0.0064	0.0650	1.0	0.0	0.001	0.09
2021	0.0150	0.0485	2.5	0.0	0.003	0.08
Total	-	-	**3.5**	**0.1**		
Maximum	0.0150	0.0650	-	-	**0.003**	**0.09**

As a result, the DEIR concludes that the Project would not cause a significant health risk impact to sensitive receptors near the Project site (p. 41). This conclusion, however, is incorrect. Review of the construction HRA demonstrates that the analysis fails to calculate the cancer risk posed to 3rd trimester gestations, which is inconsistent with recommendations set forth by the Office of Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct HRAs in California (see excerpt below) (Appendix C, pp. 110).

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information: DPM Conc (ug/m3) Year	Infant/Child - Exposure Information: DPM Conc (ug/m3) Annual	Infant/Child - Exposure Information: Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Year	Adult - Exposure Information: Modeled DPM Conc (ug/m3) Annual	Adult - Exposure Information: Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum Fugitive PM2.5	Maximum Total PM2.5
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0064	10	1.04	2019	0.0064	1	0.02	0.0650	0.071
2	1	1 - 2	2020	0.0150	10	2.47	2020	0.0150	1	0.04	0.0485	0.063
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						3.51				0.06		

* Third trimester of pregnancy

As the above HRA summary table demonstrates, the cancer risk for 3rd trimester gestations (age -0.25 – 0) was not calculated or included in the reported total excess cancer risk estimations. The cancer risk calculation only represents the cancer risk posed to infant receptors (age 0 – 2). The Project Applicant's failure to assess the construction-related health risk posed to 3rd trimester gestations is incorrect and inconsistent with OEHHA guidance.

OEHHA adopted its most recent Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments in March of 2015.6 The OEHHA guidelines explicitly state that in order to conduct a cancer risk assessment, the “inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16<70 years.”7 The OEHHA guidelines go on to assert that “the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location.”8 Therefore, in accordance with OEHHA guidance, the Project Applicant should have calculated and summed the cancer risk posed to all exposed sensitive receptors during the two year construction duration, which includes both 3rd trimester gestation and infant receptors.

Furthermore, by failing to conduct the Project’s construction HRA using OEHHA methodology, the DEIR fails to follow requirements set forth by the BAAQMD. The BAAQMD’s Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines states,

> “All HRAs shall be completed by following the procedures described in the OEHHA Health Risk Assessment Guidelines for the Air Toxics Hot Spots Program adopted by OEHHA on March 6, 2015 and using the recommended breathing rates described in the ARB/CAPCOA Risk Management Guidance for Stationary Sources of Air Toxics adopted by ARB on July 23, 2015.”9

As seen above, BAAQMD guidelines clearly state that projects within BAAQMD jurisdiction must comply with OEHHA guidance when determining a project’s health risk. The 555 East Evelyn Avenue Residential Project is located in the City of Mountain View, which is under BAAQMD jurisdiction. As such, because an HRA was prepared for the proposed Project, the HRA should have employed OEHHA guidance in order to accurately account for impacts to all sensitive receptors. By failing to do so, the Project’s construction HRA is inconsistent with requirements and guidance set forth by the BAAQMD. Additionally, we previously discussed the ways in which the DEIR’s air modeling is incorrect and therefore underestimates the Project’s construction air pollutant emissions. As a result, it is critical that the Project Applicant prepare an updated CalEEMod air model and an updated construction HRA to include the cancer risk posed to 3rd trimester gestation receptors in order to more accurately evaluate the Project’s health-related impacts.

Response D.23: Please refer to Responses D.6 through D.8.

Comment D.24: Failure to Conduct Operational Health Risk Assessment: The DEIR concludes that the proposed Project would have a less than significant impact on the health of sensitive receptors near the Project site without conducting a quantitative HRA for operation (p. 41). The DEIR simply states that “the project would introduce new residents that are sensitive receptors” with no mention of the Project’s operational toxic air contaminant (TAC) emissions impacts on existing residential receptors (Appendix C, p. 11). The DEIR fails to conduct a quantified operational HRA for nearby existing sensitive receptors and instead solely relies upon an HRA which evaluates cancer risk posed new on-site receptors. Based on the HRA for new, on-site receptors, the DEIR concludes that the Project would have a less than significant health risk impact (p. 4.2-18). The DEIR justifies this analysis by stating,

> “Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by

> introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The project would introduce new residents that are sensitive receptors. In addition, temporary project construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors" (Appendix C, p. 11).

The DEIR goes on to conclude,

> "The cancer risks and annual PM2.5 concentrations associated with each of these sources would be lower than the BAAQMD significance thresholds of greater than 10.0 in one million and the 0.3 μg/m3, and would therefore be considered a less-than-significant impact" (Appendix C, p.18).

This significance determination is incorrect, as the Project Applicant cannot claim that the Project would result in a less than significant health risk impact without properly assessing the risk posed to existing sensitive receptors as a result of DPM emissions that will be emitted during Project activities. As a result, until the Project's operational health risk impact is adequately quantified and compared to applicable thresholds, the DEIR cannot make any conclusions with regards to the Project's health-related impacts.

By failing to prepare an operational HRA for existing sensitive receptors, the DEIR is inconsistent with recommendations set forth by the 2015 OEHHA guidelines. The OEHHA guidance document describes the types of projects that warrant the preparation of a health risk assessment.10 Once construction of the Project is complete, the Project will operate for a long period of time. During operation, the Project will generate vehicle trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to emissions. The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).11 Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risks from Project operation should have also been evaluated by the DEIR, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, an updated assessment of health risks to nearby sensitive receptors from operation should be included in a revised CEQA evaluation for the Project.

In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, we prepared a simple screening-level operational HRA. The results of our assessment, as described below, demonstrate that operational DPM emissions may result in a potentially significant health risk impact that was not previously identified or evaluated within the DEIR.

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening-level air quality dispersion model. 12 The model replaced SCREEN3, which is included in OEHHA13 and CAPCOA14 guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary health risk screening assessment of the Project's operational impacts to sensitive receptors using the operational annual estimates from SWAPE’s updated air model for the proposed Project. The DEIR identifies the location of the residential MEIR near the Project site (p. 40). Using Google Earth, we determined that the MEIR is located approximately 10 meters from the Project site. Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, thus, we evaluated the Project’s operational emissions staring in the last 0.25 years of the infant stage of life, immediately after the 24-month construction is completed. We also assumed that construction and operation of the Project would occur sequentially, with no gaps between each Project phase. The CalEEMod model’s annual emissions indicate that operational activities will generate approximately 126.6 pounds of DPM per year. The AERSCREEN model relies on a continuous average emissions rate to simulate maximum downwind concentrations from point, area, and volume emissions sources. Subtracting the two-year construction duration from the total residential exposure duration of 30 years, we assumed that after Project construction, the MEIR would be exposed to the Project’s operational DPM emissions for an additional 28.25 years approximately. Applying the following equation, we estimated the average DPM emission rate for Project operation.

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{126.6\ lbs}{365\ days} \times \frac{453.6\ grams}{lb} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds}$$
$$\approx \mathbf{0.001821}\ {}^{g}/_{s}$$

Operational activity was simulated as a 6-acre rectangular area source in AERSCREEN, with dimensions of 188 meters by 130 meters. A release height of three meters was selected to represent the height of exhaust stacks on construction equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.15 The single-hour concentration estimated by AERSCREEN for Project operation is approximately 2.103 µg/m3 DPM at approximately 25 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2103 µg/m3 for operation.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable HRA methodologies prescribed by OEHHA and the BAAQMD. The annualized average concentration for operation was used for the remainder of the 30-year exposure period after the two year construction period, which makes up the remainder of the infant stage of life, the entirety of the child stage of life (2 to 16 years), and the entirety of the adult stage of life (16 to 30 years). Consistent with OEHHA guidance and the DEIR’s construction HRA, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.16 According to the updated OEHHA guidance, quantified cancer risk should be multiplied by a factor of ten during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used 95th percentile breathing rates for infants.17 Finally, consistent with the DEIR's construction HRA, we used a Fraction of Time At Home (FAH) Value of 1 for the 3rd trimester, infant, and child receptors and we used a FAH Value of 0.73 for the adult receptors. We used a cancer potency factor of 1.1 (mg/kg-day)-1 and an averaging time of 25,550 days. The results of our calculations are shown below.

Operational Cancer Risk at the Maximum Exposed Individual Residential Receptor					
Parameter	**Description**	**Units**	**Infant**	**Child**	**Adult**
Cair	Concentration	µg/m³	0.2103	0.2103	0.2103
DBR	Daily breathing rate	L/kg-day	1090	572	261
EF	Exposure Frequency	days/year	350	350	350
ED	Exposure Duration	years	0.25	14	14
AT	Averaging Time	days	25550	25550	25550
	Inhaled Dose	(mg/kg-day)	7.9E-07	2.3E-05	1.1E-05
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1	1.1	1.1
ASF	Age Sensitivity Factor	-	10	3	1
FAH	Fraction of Time at Home	-	1	1	0.73
	Cancer Risk by Age Group		***8.6E-06***	***7.6E-05***	***8.5E-06***
	Total Operational Cancer Risk				**9.3E-05**

As demonstrated above, the excess cancer risk to adults, children, and infants at a sensitive receptor located approximately 25 meters away, over the course of Project operation, are approximately 8.5, 76, and 8.6 in one million, respectively. Furthermore, the excess operational cancer risk over the course of Project operation (28.25 years) is approximately 93 in one million. The child and lifetime operational cancer risk greatly exceed the BAAQMD's threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the DEIR.

Furthermore, as previously stated, the 2015 OEHHA guidance document states that when calculating the total cancer risk impact associated with a project, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location."18 Thus, the guidance expressly states that the combined construction and operational excess cancer risks should be evaluated to make a significance determination at a sensitive receptor location. Based on the DEIR's underestimated construction cancer risk estimate and SWAPE's screening-level operational HRA, the combined cancer risk for construction and operation of the proposed Project would be approximately 96.5 in one million.19 Therefore, it can be assumed that with updated construction HRA calculations, the Project's lifetime cancer risk estimate would far exceed the BAAQMD's significance threshold of 10 in one million.

It should be noted that our operational analysis represents a screening-level HRA, which is known to be more conservative, and tends to err on the side of health protection, in contrast to the more refined construction HRA prepared by the Project Applicant.20 The purpose of a screening-level HRA, however, is to determine if a more refined HRA needs to be conducted. If the results of a screening-level assessment are above applicable thresholds, then the Project needs to conduct a more refined HRA that is more representative of site-specific concentrations. Our screening-level HRA demonstrates that operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined operational HRA as well as updated construction HRA calculations must be prepared to examine air quality impacts generated by Project construction and operation using site-specific meteorology. An updated DEIR should be prepared to adequately evaluate the Project's health risk impact and should include additional mitigation measures to reduce these impacts to a less-than-significant level.

Response D.24: Please refer to Responses D.6 through D.8.

Comment D.25: Failure to Adequately Evaluate the Project's Greenhouse Gas Impacts: The DEIR concludes that the Project would not result in a significant GHG impact because it would include several measures to support the BAAQMD's 2017 Clean Air Plan (CAP) and the City's Greenhouse Gas Reduction Plan (GGRP). The DEIR states that "the proposed project would implement relevant measures from the 2017 CAP and the City's GGRP; therefore, it would not conflict an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs" (p. 79). The DEIR, however, fails to adequately demonstrate compliance with the City's GGRP and therefore cannot claim a less than significant GHG impact.

The Applicant asserts that the proposed Project would be consistent with the GHG reduction measures mandated by the City' GGRP, stating,

> "The GGRP identifies a series of GHG emissions reduction measures to be implemented by development projects that would allow the City to achieve its GHG reduction goals. In the GGRP, Mandatory Measure E-1.6, which reinforces the implementation of MVGBC codes for energy efficiency that exceed Title 24 requirements. The project would plant trees on- and off-site, consistent with Measure E-1.8 Building Shade Trees in Residential Development. The project also proposes to implement a TDM plan at the project site, consistent with T-1.1, Transportation Demand Management" (p. 79).

The DEIR claims that because the Project will implement these strategies, the Project's GHG impact would be less than significant (p. 79). This conclusion, however, is incorrect, as the DEIR fails to comply with the requirements of Mandatory Measure T-1.1 regarding the preparation of a Transportation Demand Management (TDM) plan. In order to ensure that the City's GGRP measures translate into on-the-ground results, the GGRP asserts that "the proposed project would describe how each measure would be integrated into the development in its application materials and environmental documentation."21 Additionally, the City's GGRP Measure T-1.1 explicitly requires that projects develop transportation demand management plans prior to project review. The GGRP requires that "at the time of project review, all subject development will submit to the City a qualified Transportation Demand Management Plan that demonstrates compliance with the required TDM performance standard."22 The DEIR, however, simply proposes to implement a TDM plan, yet fails to demonstrate how Mandatory Measure T-1.1 would be achieved through Project activities, and fails to submit a TDM plan at the time of Project review.

As a result, it is unclear how the Project Applicant will achieve compliance with the GGRP's Mandatory Measure T-1.1, or whether the measure will be implemented at all. Thus, the DEIR cannot simply state that the Project is consistent with the City's GGRP and thereby conclude that the

Project's GHG impact is less than significant, as the DEIR fails to actually demonstrate compliance with the applicable criteria disclosed in the City's GGRP. By failing to prepare a robust TDM plan to undergo review, the DEIR's claimed consistency with the GGRP and actual GHG emissions reductions cannot be verified or ensured. Until the Applicant prepares a thorough TDM plan for review, as well as describes how the plan will be integrated into Project activities, the Project is not consistent with the City's GGRP and cannot claim a less than significant GHG impact.

Response D.25: Please refer to Responses D.9 and D.10.

E. Ann Comey (dated November 18, 2018)

Comment E.1: As a resident of the Mondrian Subdivision next door to the Flower Market site, this letter requests a reduction in the project's proposed density to make it conform to other nearby developments. The area does not have compatible development to support five story apartments. There are no nearby retail or employment sites within walking distance, no transit service that is likely to take enough residents in a reasonable time to a destination they might want to reach for the low trip generation rate to be valid, and no robust street network that can support the new traffic without making a notable change in the environment.

Response E.1: The project varies in height from three to five stories, with the tallest portions of the buildings facing away from adjacent, lower-height residential uses. The downtown Mountain View and Sunnyvale Caltrain stations are each located approximately one mile from the project. The Whisman light rail station is 0.40 mile from the project. The East Whisman Precise Plan area, an employment-rich portion of the City, is immediately north of the project site across the Caltrain tracks and Central Expressway. While development compatibility and distance to other complementary uses is not directly a CEQA issue, the comment is noted for the decision makers.

The project used the mid-rise multifamily housing land use (code 221) trip-generation rate specified in the *Institute of Traffic Engineers (ITE) Trip Generation Manual, 10th Edition*. ITE trip rates come from compiled empirical research studies and data. They are commonly used to estimate the trip generation of projects in the City of Mountain View and throughout the Bay Area. For these reasons, the trip generation based on ITE rates (resulting in 2,704 net daily vehicle trips) used for the Draft EIR is the basis for an adequate analysis under CEQA.

Comment E.2: Even though the traffic study makes a good and rule-following estimate of traffic conditions with the proposed project, the trip generation rate is just over one peak hour trip for every three apartments. In a development that has been described as a "luxury" (also known as high rent) apartment complex by the developers, in a city that is well known for the last several years for its high rents, so high that people can't afford to live here without at least two wage earners in every housing unit, the suggested low trip generation rate is just not credible.

Response E.2: Please refer to Response E.1 regarding the trip generation rate. A TDM plan will also be implemented (as described in the Project Description of the Draft EIR and included in Section 4.0 Draft EIR Text Revisions as Appendix E Commute Alternatives

Program to the TIA) to further reduce trips generated by the project. The developer will be required to participate in the City's TMA as a condition of approval.

Comment E.3: The residents of Mondrian conducted a traffic count at our two site driveways on Wednesday, November 13, 2018. The count data and findings are attached. We calculated a peak hour trip rate of 0.67 trips per unit, a little bit less than double the suggested rate for the 555 East Evelyn project. Also, Mondrian was built with 2-1/3 parking spaces per unit, and for the approximate 6 years since the development was been fully occupied, the parking capacity has been a struggle. To read that the 555 E Evelyn development will only provide 1.45 spaces per unit is frightening.
We request that a revised traffic study be conducted with locally-validated trip generation rates. Please see the attached spreadsheet with Mondrian driveway counts.

Response E.3: While parking is not a CEQA issue, the project would provide 668 total on-site parking spaces. Parking was addressed in the Transportation Impact Analysis prepared for the project (see Appendix K of the DEIR). The analysis found the parking provided would be adequate to meet project demand and would comply with the City's parking requirements.

SECTION 4.0 DRAFT EIR TEXT REVISIONS

This section contains revisions to the text of the 555 East Evelyne Avenue Residential Project Draft EIR dated October 2018. Revised or new language is underlined. All deletions are shown with a ~~line through the text~~.

<table>
<tr><th>Page and Section</th><th>Text Revisions</th></tr>
<tr><td>Page 38; 3.3.2.2 Air Quality Impacts</td><td>
<table>
<tr><th colspan="5">Table 3.3-2: Construction Period Emissions</th></tr>
<tr><th>Scenario</th><th>ROG</th><th>NOx</th><th>PM_{10} Exhaust</th><th>$PM_{2.5}$ Exhaust</th></tr>
<tr><td>Total construction emissions</td><td>~~3.8 tons~~
4.4 tons</td><td>5.3 tons</td><td>0.1 tons</td><td>0.1 tons</td></tr>
<tr><td>**Average daily emissions[1]**</td><td>**~~13.4 lbs./day~~**
15.5 lbs./day</td><td>**18.4 lbs./day**</td><td>**0.4 lbs./day**</td><td>**0.4 lbs./day**</td></tr>
<tr><td>*BAAQMD Thresholds*</td><td>*54* lbs./day</td><td>*54* lbs./day</td><td>*82* lbs./day</td><td>*54* lbs./day</td></tr>
<tr><td>**Exceed Threshold?**</td><td>**No**</td><td>**No**</td><td>**No**</td><td>**No**</td></tr>
<tr><td colspan="5">[1] Assumes 571 workdays</td></tr>
</table>
</td></tr>
<tr><td>Page 66; Section 3.6.2.1 Energy Waste or Increase in Demand</td><td>**Operation**
Operation of the project would consume energy for multiple purposes including, building heating and cooling, lighting, and appliance use. Operational energy would also be consumed by resident, employee, and customer vehicle use to and from the site. It is estimated that the proposed project would use approximately ~~1,565,790~~ 1,944,450 kWh of electricity and 4,069,180 kBtu of natural gas per year. Given the project’s estimated 6,406,675 vehicle miles traveled per year, it is estimated that project trips would use approximately 291,213 gallons of gasoline per year (assuming an average fuel economy of 22.0 mpg).</td></tr>
<tr><td>Page 78; Section 3.8.2.1 GHG Emissions</td><td>As shown below in Table 3.3-1, annual emissions resulting from operation of the proposed project are estimated to be ~~2.0~~ 4.2 MTCO2e/year/service population (S.P.), which would be below the GGRP significance threshold of 4.5 MTCO2e/year/S.P.</td></tr>
</table>

Page and Section	Text Revisions

Table 3.8-1: Annual Project GHG Emissions in 2030	
Source Category	**Proposed Project Emissions (MTCO2e)**
Area	25
Energy Consumption	218[1]
Mobile	~~1,896~~ 2,368
Solid Waste Generation	109
Water Usage	50
Total:	4,733
Per Capita Emissions	**~~2.0~~ 4.2 MTCO2e/year/S.P.**
GGRP Threshold	***4.5 MTCO2e/year/S.P.***
Significant?	***No***
[1] Based on GHG emissions from natural gas only, SVCE electricity is GHG-emission free.	

Impact GHG-1: The project's operational emissions of ~~2.0~~ 4.2 $MTCO_2e$/year/S.P. would not exceed the City's GGRP 2030 threshold of 4.5 $MTCO_2e$/year/S.P. **[Less than Significant Impact]**

Page and Section	Text Revisions
Page 99; Section 3.10.2.2 Water Quality Impacts	**Post-Construction** Construction of the project would result in the replacement of more than 10,000 square feet of impervious surface area. As a result, the project would be required to comply with the requirements of the MRP. In order to meet these requirements, the proposed project would include LID- and non-LID-based stormwater treatment controls (e.g., bioretention treatment areas, mechanical filters, etc). Non-LID controls will be used in accordance with "Special Project criteria in the MRP. Stormwater runoff from the site would drain into the stormwater treatment controls. The proposed treatment controls would be numerically sized and would have sufficient capacity to treat the runoff from the roofs, podium decks, hardscape, and driveway areas entering the storm drainage system consistent with the NPDES requirements.
Page 171; References	San Francisco Bay Regional Water Quality Control Board. Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Region. Site accessed December 10, 2018. https://www.waterboards.ca.gov/rwqcb2/water_issues/programs/sitecleanup/TCE_Interim_VI_Framework.pdf

Page and Section	Text Revisions
Appendix C	Revised CalEEMod Air Quality Calculations
Appendix K	Added Appendix E Commute Alternatives Program

SECTION 5.0 DRAFT EIR COMMENT LETTERS

The original comment letters received on the Draft EIR are provided in the following pages.

STATE OF CALIFORNIA

GOVERi'IOR'S OFFICE *of* PLANNING AND RESEARCH

Em!LND G. BROWN JR.
COVER.'IOR•

KEN ALEX
DIRECTOR

November 27, 2018

Jeff Roche
City of Mountain View
500 Castro Street
P.0. Box 7540
Mountain View, CA 94039 7540

Subject: *555* East Evelyn Avenue Residential Project
SCH#: 2018042038

Dear Jeff Roche:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on November 26, 2018, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

ScottMorgan
Director, State Clearinghouse

RECEIVED

NOV 2 9 2018

Community Development

Document Details Report
State Clearinghouse Dat Base

SCH# 2018042038
Project Title 555 East Evelyn Avenue Residential Project
Lead Agency Mountain View, City of

Type **EIR** Draft EIR

Description The proposed project would demolish the existing one-story, mini-storage buildings on the 4.89-acre site and construct a 471-unit, five-story apartment complex with a 0.68-acre public park. Two levels of below-grade parking are also proposed. The project is requesting a GPA from General industrial and medium density residential to high density residential; a zoning ordinance text amendment, a zoning map amendment from P-30 (Sylvan-Dale) precise plan to R-4 (High density) and R3.2-2 (multiple family) to R-4 (high density), a ptanned community and development review permit, a vesting tentative map for condo purposes, a lot tie agreement, and a heritage tree removal permit.

Lead Agency Contact

Name Jeff Roche
Agency City of Mountain View
Phone (650) 903-6129 ***Fax***
email
Address 500 Castro Street
P.O. Box 7540
City Mountain View ***State*** CA ***Zip*** 94039-7540

Project Location

County Santa Clara
City Mountain View
Region
Lat/Long 37° 23' 8.60" N / 122° 3' 16.72" W
Cross Streets Moorpark Way, SR-237, South Bernardo Ave
Parcel No. 161-15-016, -004, -005
Township ***Range*** ***Section*** ***Base***

Proximity to:

Highways SR 237
Airports Moffett Federal Airfield
Railways Caltrain, UPRR
Waterways Stevens Creek
Schools Mtn. View/ Sunnyvale Dist.
Land Use GP: Medium density res and general industrial; Z: R3-2.2 and P-30 Precise plan

---

Project Issues AestheticNisual; Air Quality; Archaeologic-Historic; Drainage/Absorption; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Landuse; Cumulative Effects

---

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 4; Department of Housing and Community Development; Office of Emergency Services, California; Regional Water Quality Control Board, Region 2; Air Resources Board, Major Industrial Projects; Native American Heritage Commission

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Date Received 10/11/2018 ***Start of Review*** 10/11/2018 ***End of Review*** 11/26/2018

Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Ken Alex
,Director

November 26, 2018

TO: CEQA LEAD AND REVIEWING AGENCIES

RE: ANNOUNCEMENT OF CHANGE, NEW CEQA DATABASE

The **Office of Planning and Research, State Clearinghouse (SCH)** is preparing the transition to a new CEQA database. We would like to inform you that our office will be transitioning from providing hard copies of certain letters and notices to an electronic mail system. Coples of environmental documents, notices and comment letters from state agencies will also be available for view and download.

CEQA lead and reviewing agencies should include an e-mail address (at least one (1)) to receive electronic notifications.

The letters and notifications from the SCH that will now be e-mailed include: acknowledgement of receipt and close of environmental documents, comments received from state reviewing agencies on environmental documents, as well as notices of determinations and exemptions.

Updates on when the databa�e will be accessible for lead agencies to upload and submit environmental documents and notices, along with the ability for state agencies to review and comment on environmental documents through the database, will be provided as those functions become available.

For this transition process, please send your e-mail address to:

State.clearinghouse@opr.ca.gov

Should you have any questions, please do not hesitate in contacting the State Clearinghouse at (916) 445-0613 or state.clearinghouse@opr.ca.gov

Tyler Rogers

From: Roche, Jeff <Jeff.Roche@mountainview.gov>
Sent: Tuesday, November 27, 2018 8:09 AM
To: Tyler Rogers; Amie Ashton
Subject: FW: Community Benefit Fee - 555 Evelyn

Hello Again,

I am forwarding the other comments that we have received to date on the DEIR for the Prometheus Housing Project on East Evelyn Avenue.

If I receive additional comments, I will send those over to your office.

Sincerely,

Jeff Roche
Senior Planner
Community Development Department, Planning Division
500 Castro Street – P O Box 7540
Mountain View, CA 94039-7540
(650) 903-6129 Direct
(650) 903-6306 Main
Jeff.Roche@mountainview.gov
CITY OF MOUNTAIN VIEW

From: Pearse, Brent [mailto:Brent.Pearse@vta.org]
Sent: Wednesday, November 21, 2018 8:47 AM
To: Roche, Jeff
Subject: Community Benefit Fee - 555 Evelyn

Hi Jeff,

I'm currently reviewing the referral for 555 Evelyn and there are statements about a community benefit fee in the TIA that will be applied for transportation improvements. What is driving this fee and have there been any other discussions with people at VTA about this, is there a vision for what this will be used for, or any public engagement around the benefits?

Thanks,

Brent Pearse
Transportation Planner
Phone 408-546-7985
Mobile 408-550-4559

Santa Clara Valley Transportation Authority

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LOZEAU DRURY LLP

T 510.836.4200
F 510.836.4205

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Oakland, Ca 94607

www.lozeaudrury.com
michael@lozeaudrury.com

Via Email and U.S. Mail

November 26, 2018

Jeff Roche, Senior Planner
Community Development: Planning Division
City of Mountain View
500 Castro Street, 1st Floor
Mountain View, CA 94039-7540
jeff.roche@mountainview.gov

Re: **Comment on Draft Environmental Impact Report for 555 East Evelyn Avenue Residential Project, aka SCH2018042038**

Dear Mr. Roche,

I am writing on behalf of Laborers International Union of North America, Local Union No. 270 and its members living in and around the City of Mountain View ("LIUNA") regarding the Draft Environmental Impact Report ("DEIR") prepared for the project known as the 555 East Evelyn Avenue Residential Project, aka SCH2018042038, including all actions related or referring to the demolition of the existing mini-storage buildings on the site and construction of a 471-unit apartment complex on 525, 555 and 769 East Evelyn Avenue addresses on APNs: 161-15-016, -004, and -005 in the City of Mountain View ("Project").

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. LIUNA requests that the Planning Division address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist*., 60 Cal. App. 4th 1109, 1121 (1997).

Sincerely,

Michael R. Lozeau
Lozeau | Drury LLP

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SO. SAN FRANCISCO OFFICE

601 GATEWAY BLVD., SUITE 1000
SO. SAN FRANCISCO, CA 94080

TEL: (650) 589-1660
FAX: (650) 589-5062

November 26, 2018

Via Email and Overnight Mail

Jeff Roche, Senior Planner
Planning Division
Community Development Department
500 Castro Street – P.O. Box 7540
Mountain View, CA 94039-7540
Email: Jeff.Roche@mountainview.gov

Re: Comments on the Draft Environmental Impact Report – 555 East Evelyn Avenue Residential Project

Dear Mr. Roche:

We are writing on behalf of Mountain View Residents for Responsible Development ("Mountain View Residents") to provide comments on the Draft Environmental Impact Report ("DEIR") prepared by the City of Mountain View ("City") for the 555 East Evelyn Avenue Residential Project ("Project"). Prometheus Real Estate Group, Inc. ("Applicant") is proposing to demolish an existing 1.9-acre mini-storage facility to construct a 471-unit apartment complex with a 0.68-acre public park. The apartments would be distributed between two separate buildings that would vary between three and five stories. The western building would be 267,994 square feet in size and would contain 225 units. The eastern building would be 289,090 square feet in size and would contain 246 units. The Project also includes two levels of below-grade parking with 668 parking spaces. The Project site is approximately 5.89 acres in size and includes three parcels (APNs 161-15-016, -004, -005) located at 555 East Evelyn Avenue.

The Applicant is requesting the following approvals for the Project: a General Plan Amendment to amend the site designation from General Industrial and Medium Density Residential to High Density Residential; a Zoning Ordinance Text Amendment and Zoning Map Amendment from P-30 Precise Plan (Sylvan-Dale) and R3.2-2 (Multiple- Family) to R-4 (High Density); a Planned Community and Development Review Permit; a Vesting Tentative Map; a Lot Tie Agreement; and a Heritage Tree Removal Permit for the removal of 16 Heritage trees.

Based on our review of the DEIR and related Project documents, we have determined that the DEIR does not comply with the requirements of the California Environmental Quality Act ("CEQA"). First, the City underestimates the Project's construction and operational emissions of criteria pollutants and toxic air contaminants ("TACs") and thus lacks substantial evidence to support its conclusion that air quality impacts would be less than significant. Second, the City failed to properly disclose and analyze the Project's potential public health impacts to nearby sensitive receptors from exposure to emissions of TACs, which substantial evidence shows will be significant. Third, the City failed to adequately demonstrate the Project will comply with the City's Greenhouse Gas Reduction Plan and, therefore, lacks substantial evidence to support its conclusion that GHG impacts would be less than significant. Fourth, the DEIR's analysis of the Project's energy use fails to comply with CEQA. Fifth, the DEIR fails to adequately disclose, analyze, and mitigate impacts to future the public from hazardous soil vapors. For each of these reasons, the City may not approve the Project until a revised DEIR is prepared and re-circulated for public review and comment.

These comments were prepared with the assistance of technical experts Matt Hagemann and Hadley Nolan of Soil Water Air Protection Enterprise ("SWAPE").[1] SWAPE's comments and curriculum vitae are attached hereto as Attachment 1, are fully incorporated in these comments and are submitted to the City in addition to the comments in this letter. Accordingly, the City must address and respond to the technical experts' comments separately.[2]

I. STATEMENT OF INTEREST

Mountain View Residents is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public health and environmental impacts associated with the Project. Mountain View Residents includes the International Brotherhood of Electrical Workers Local 332, Plumbers & Steamfitters Local 393, Sheet Metal Workers Local 104, Sprinkler Fitters Local 483,

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[1] See Attachment 1: Letter from Matt Hagemann & Hadley Nolan, SWAPE, to Collin S. McCarthy, Adams Broadwell Joseph & Cardozo re: Comments on the 555 East Evelyn Residential Project (Nov. 23, 2018) ("SWAPE Comments").

[2] Mountain View Residents reserves the right to supplement these comments at later hearings and proceedings related to this Project. Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; *see Galante Vineyards v. Monterey Water Dist*. (1997) 60 Cal. App. 4th 1109, 1121.

and their members and families, and other individuals that live and/or work in the City of Mountain View and Santa Clara County.

Individual members of Mountain View Residents and its member labor organizations live, work, recreate and raise their families in the City of Mountain View and Santa Clara County. They would be directly affected by the Project's adverse environmental and public health impacts. Individual members may also work on the Project itself and, therefore, will be first in line to be exposed to any health and safety hazards that exist onsite. Mountain View Residents have a strong interest in enforcing the State's environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the City of Mountain View and Santa Clara County, and by making it less desirable for businesses to locate and people to live there.

II. LEGAL BACKGROUND

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR, except in limited circumstances.[3] The EIR is the very heart of CEQA.[4] "The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language."[5]

CEQA has two primary purposes. First, CEQA is designed to inform decisionmakers and the public about the potential, significant environmental effects of a project.[6][7] CEQA's purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. In this respect, an EIR "protects not only the environment but also informed self-government."[8] The EIR has been described as "an environmental 'alarm bell' whose

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[3] See, e.g., Pub. Resources Code ("PRC") § 21100.
[4] *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.
[5] *Comtys. for a Better Env' v. Cal. Res. Agency* (2002) 103 Cal. App.4th 98, 109 ("*CBE v. CRA*").
[6] 14 Cal. Code Regs. ("CEQA Guidelines"), § 15002, subd. (a)(1).
[7] See, e.g., PRC § 21100.
[8] *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[9]

In furtherance of CEQA's purpose as an informational tool, the discussion of impacts in an EIR must be detailed, complete, and "reflect a good faith effort at full disclosure."[10] CEQA requires an EIR to disclose all potential direct and indirect, significant environmental impacts of a project.[11] In addition, an adequate EIR must contain the facts and analysis necessary to support its conclusions.[12]

The second purpose of CEQA is to require public agencies to avoid or reduce environmental damage when possible by requiring appropriate mitigation measures and through the consideration of environmentally superior alternatives.[13] The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to identify ways that environmental damage can be avoided or significantly reduced. To that end, if an EIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize those impacts.[14] CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.[15] Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the EIR to meet this obligation.

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference."[16] As the courts have explained, "a

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[9] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[10] CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.
[11] PRC § 21100, subd. (b)(1); CEQA Guidelines § 15126.2, subd. (a).
[12] See *Citizens of Goleta Valley* 52 Cal.3d at 568.
[13] CEQA Guidelines § 15002, subds. (a)(2)-(3); see also, *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391, 400.
[14] PRC §§ 21002.1, subd. (a), 21100, subd. (b)(3).
[15] PRC §§ 21002-21002.1.
[16] *Berkeley Jets*, 91 Cal. App. 4th 1344, 1355 (emphasis added), *quoting, Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391 409, fn. 12.

prejudicial abuse of discretion" occurs "if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process."[17]

III. The DEIR's Conclusion that Air Quality Impacts Would be Less Than Significant Is Not Supported by Substantial Evidence

An EIR must fully disclose all potentially significant impacts of the project under consideration. Furthermore, when making a determination as to the significance of project impacts, the lead agency's determination must be supported by accurate scientific and factual data for each impact.[18] An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.[19]

A. The Input Parameters Used in the DEIR's Emissions Model Are Not Supported by Substantial Evidence

The DEIR states that the Project's construction and operational emissions were calculated using the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod").[20] When modeling a project's emissions, CalEEMod provides the user with recommended default values based on information such as land use type, meteorological data, project type, and typical equipment associated with the project type.[21] The user may then replace default values when more site-specific information is available; however, any changes to CalEEMod defaults must be supported by substantial evidence.[22] Once the model is run, CalEEMod generates "output files" for each model that reveal the parameters used in the model.

[17] *Berkeley Jets*, 91 Cal.App.4th at 1355; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722; *Galante Vineyards v. Monterey Peninsula Water Management Dist*. (1997) 60 Cal.App.4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 946.
[18] CEQA Guidelines § 15064(b).
[19] *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.
[20] DEIR, Appendix C at p. 7.
[21] SWAPE Comments at p. 1.
[22] *Id*. (citing CalEEMod User Guide, p. 2, 9, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4).

SWAPE reviewed the CalEEMod output files for the Project included in DEIR Appendix C.[23] In reviewing the CalEEMod output files, SWAPE found several of the input parameters used to calculate the Project's emissions are inconsistent with information provided in the DEIR. As SWAPE's comments explain, these changes are not supported by substantial evidence and resulted in an underestimation of the Project's emissions.[24]

First, the Project's CalEEMod output files show that the square footage of the proposed residential land use was substantially underestimated in the air model.[25] The Project description states that the western building would be 267,994 square feet in size and the eastern building would be 289,090 square feet – a total of 557,084 square feet for the entire residential land use.[26] In reviewing the CalEEMod output files, however, SWAPE found that the air model was prepared assuming a residential land use size of only 471,000 square feet, 86,084 square feet *less* than the actual Project size.[27] This discrepancy is significant because the land use type and size are used by CalEEMod to determine emission factors that go into the model's calculations.[28] For example, SWAPE explains that "the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts)."[29] Thus, because the residential land use in the air model is smaller than the actual Project size, the construction and operational emissions are underestimated.[30]

Second, SWAPE found that the usage hours for several pieces of construction equipment was manually reduced in the model, and are inconsistent with the daily usage hours provided by the Applicant.[31] DEIR Appendix C includes a table listing the construction equipment to be used in the Project and the anticipated daily usage hours for all pieces of equipment.[32] However, SWAPE found that rather than

[23] *Id*. at pp. 2-6.
[24] *See id*. at pp. 2-6.
[25] *Id*. at p. 2.
[26] DEIR at p. 4.
[27] SWAPE Comments at p. 2.
[28] *Id*. at p. 2.
[29] *Id*. at p. 2.
[30] *Id*. at p. 2.
[31] *Id*. at pp. 3-6.
[32] DEIR, Appendix C, Attachment 3 (construction equipment and usage spreadsheet).

inputting the listed hours per day in the CalEEMod model as the CalEEMod User's Guide instructs, the Project emissions model was prepared using an undefined average number of usage hours that are significantly lower than the "Hours/day" values provided in the construction equipment table.[33] SWAPE concludes, "[b]y utilizing artificially reduced usage hours for most of the pieces of construction equipment, the air model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance."[34]

Because the emissions calculations included in the DEIR were prepared using assumptions that are inconsistent with the Project information provided in the DEIR, and consequently underestimate Project emissions, the City may not rely on these unsupported emissions calculations to determine the significance of the Project's air quality and public health impacts. The City lacks substantial evidence for the conclusions in the DEIR that air quality and public health impacts would be less than significant. Project emissions must be recalculated using data that is consistent with the Project description.

B. The DEIR's Conclusion that Public Health Impacts on Nearby Receptors Would Be Less Than Significant Is Not Supported by Substantial Evidence

The City evaluated the Project's public health impacts on nearby receptors by preparing a health risk assessment ("HRA") that evaluates diesel particulate matter emissions from Project construction activities.[35] Relying on that HRA, the DEIR concludes that, with implementation of mitigation measure MM AQ-3, the Project's TAC emissions would result in a less than significant impact on nearby sensitive receptors.[36] The City did not prepare an HRA to evaluate the impacts of the Project's operational emissions on those sensitive receptors. Instead, the DEIR includes a community health risk assessment of the impacts of existing sources of TAC emissions on future Project occupants, not including emissions from operation of the Project itself.[37]

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[33] SWAPE Comments at pp. 3-6.
[34] *Id.* at p. 6.
[35] DEIR, Appendix C, at pp. 19-22.
[36] DEIR at p. 41.
[37] *See id.* at pp. 44-45; DEIR, Appendix C, at pp. 11-18.

As explained more fully in the attached SWAPE comments, the City's conclusion that the Project's health risk impacts on nearby sensitive receptors would be less than significant is not supported by substantial evidence for several reasons.[38]

First, as discussed in section III(A) above, the City's HRA was prepared using a flawed CalEEMod emissions model which underestimated Project emissions.[39] Because Project construction emissions are underestimated, and those emissions numbers are used to prepare the construction HRA, the HRA also underestimates the construction-related health risk to nearby sensitive receptors.[40]

Second, the DEIR's construction HRA was not prepared in accordance with relevant agency guidance for the preparation of health risk assessments, namely the Office of Environmental Health Hazards Assessment ("OEHHA") and the Bay Area Air Quality Management District ("BAAQMD"). As SWAPE explains, the City's construction HRA fails to account for the cancer risk posed to 3rd trimester gestations that will be exposed to construction-related emissions during Project construction activities.[41] However, the OEHHA guidelines explicitly state that in order to conduct a proper cancer risk assessment, inhalation dose must be calculated beginning in the 3rd trimester of pregnancy.[42] BAAQMD guidelines also expressly provide that all HRAs shall be conducted following the procedures set forth by OEHHA.[43] Thus, the HRA should have employed OEHHA guidance in order to accurately assess Project impacts to all sensitive receptors. By failing to do so, the HRA is inconsistent with the guidance set forth by OEHHA and the air district with jurisdiction over the Project, BAAQMD.

Finally, SWAPE explains that the DEIR's omission of a quantified HRA for the Project's *operational* emissions is inconsistent with the most recent guidance published by OEHHA, therefore, the City's conclusion that public health risks to nearby receptors would be less than significant unsupported.[44] OEHHA's 2015 guidelines describe the types of projects that warrant preparation of a health risk

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[38] SWAPE Comments at pp. 6-13.
[39] *Id.* at pp. 1-6.
[40] *See id.* at p. 6.
[41] *Id.* at pp. 6-8.
[42] *Id.* at p. 8.
[43] *Id.*
[44] *Id.* at p. 9.

assessment.[45] The Guidelines recommend that exposure from projects lasting more than 6 months should be evaluated for the duration of the project.[46]

Here, once the Project is operational, it will generate vehicle trips, which generate additional exhaust emissions, and will therefore continue to expose nearby receptors to emissions of TACs for the duration of the Project.[47] These emissions will be in addition to the emission sources in the Project area identified in the community health risk assessment. Exposure to traffic-related emissions has been implicated with a variety of cancer as well as non-cancer health risks including acute and chronic respiratory disease, including reduced lung function and increased asthma hospitalizations and heart attacks, as well as premature death in elderly individuals with heart disease.[48] While an expected duration was not provided in this case, it can reasonably be assumed the Project will operate for at least 30 years – much longer than the 6-month minimum in the OEHHA guidelines. For this reason, SWAPE concludes that the health risks from Project operations should have also been evaluated in the HRA.[49]

C. Substantial Evidence Shows that the Project May Result in a Significant Cancer Risk from the Project Exposing People to Toxic Air Contaminants

In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, SWAPE prepared a screening-level operational health risk assessment.[50] The results of SWAPE's HRA provide substantial evidence that the Project's operational emissions of diesel particulate matter may result in a significant health risk impact that was not disclosed in the DEIR.

SWAPE used the AERSCREEN model for its screening level HRA.[51] AERCREEN is a screening-level dispersion model recommended by OEHHA and the California Air Pollution Control Officers Association guidance as the

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[45] *Id.*
[46] *Id.*
[47] *Id.*
[48] CARB, *Air Quality and Land Use Handbook: A community Health Perspective* (April 2005) at pp. 8-10.
[49] SWAPE Comments at p. 10.
[50] *Id.* at pp. 10-13.
[51] *Id.* at pp. 10-11.

appropriate dispersion model for level 2 health risk screening assessments.[52] The operational emissions estimates used in SWAPE's health risk screening assessment are based on SWAPE's updated CalEEMod air model for the Project, which corrected the inaccuracies in the City's model outlined in Section III(A) above.[53] Consistent with the recommendations set forth by OEHHA, SWAPE used a residential exposure duration of 30 years, starting from the last .25 years of the infant stage of life, immediately after the 24-month construction period is completed.[54] SWAPE's assumptions and formulas are explained more fully in the attached letter.[55]

SWAPE's health risk analysis found that the excess cancer risk to adults, children, and infants at a sensitive receptor located approximately 25 meters away in the adjacent residential apartments, over the course of Project operation, are approximately 8.5, 76, and 8.6 in one million, respectively.[56] The total (i.e., lifetime) excess operational cancer risk over the course of Project operation (28.25 years) is approximately 93 in one million.[57] As SWAPE's analysis demonstrates, the child and lifetime cancer risk from Project operations alone greatly exceeds the BAAQMD threshold of 10 in one million.[58]

Furthermore, as SWAPE explains, OEHHA guidance provides that when calculating the total cancer risk associated with a project, the excess cancer risk is calculated separately for each age group and phase then summed.[59] Thus, per OEHAA guidance, combined construction and operational excess cancer risk should be evaluated to make a determination of significance at a sensitive receptor location.[60] Even assuming the DEIR's estimated construction cancer risk estimate of 3.5 in one million is correct, the combined cancer risk for construction and operation of the proposed Project would be approximately 96.5 in one million.[61] Thus, SWAPE concludes, "it can be assumed that with updated construction HRA calculations, the

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[52] *Id*. at p. 11.
[53] *Id*. at pp. 6, 10.
[54] *Id*. at p. 10.
[55] *Id*. at pp. 10-13.
[56] *Id*. at p. 12.
[57] *Id*.
[58] *Id*.
[59] *Id*.
[60] *Id*.
[61] *Id*.

Project's lifetime cancer risk estimate would far exceed the BAAQMD's significance threshold of 10 in one million."[62]

As SWAPE notes, screening level health risk assessments are known to be more conservative and are aimed at health protection.[63] However, the purpose of a screening-level health risk assessment is to determine whether a more refined HRA needs to be conducted. SWAPE's analysis demonstrates that the more refined HRA needs to be conducted in this case in order to properly disclose, analyze, and mitigate the Project's potentially significant public health impacts. The City must perform this analysis and re-circulate the DEIR for public review and comment.

IV. The City's Greenhouse Gas Reduction Plan Requires That a Transportation Demand Management Plan be Prepared

The DEIR concludes that GHG impacts would be less than significant because the Project would include several measures consistent with the BAAQMD's 2017 Clean Air Plan and the City's Greenhouse Gas Reduction Plan ("GGRP"). According to the DEIR, "the proposed project would implement relevant measures from the 2017 CAP and the City's GGRP; therefore, it would not conflict an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs."[64] As SWAPE explains, however, the DEIR fails to adequately demonstrate compliance with the City's GGRP, namely the requirement to prepare a transportation demand management plan at the time of Project review.[65] Instead, the DEIR indicates a transportation demand management plan will be developed and implemented at a later date, deferring formulation of a specific TDM plan. Because a TDM has not been submitted, the City lacks substantial evidence for the determination that the Project is consistent with the GGRP and that impacts would be less than significant.

Mandatory Measure T-1.1 of the GGRP includes a requirement that certain development projects implement a Transportation Demand Management plan ("TDM"). In order to ensure that the City's GGRP measures translate into on-the-ground results, the GGRP provides that projects subject to this requirement must

[62] *Id.*
[63] *See id.* at pp. 12-13.
[64] DEIR at p. 79.
[65] SWAPE Comments at pp. 13-14.

"describe how each measure would be integrated into the development in its application materials and environmental documentation."[66] Additionally, the City's GGRP Measure T-1.1 explicitly requires that projects develop transportation demand management plans at the time of environmental review. The GGRP states that "at the time of project review, all subject development will submit to the City a qualified Transportation Demand Management Plan that demonstrates compliance with the required TDM performance standard."[67]

Here, the DEIR does not include a transportation demand management plan or indicate that such a plan has been submitted for the Project. Rather, the DEIR indicates a TDM plan will be implemented by the Project and outlines a number of potential measures that could be incorporated in that future plan. Because development of the plan is deferred, however, it is unclear how the Project Applicant will achieve compliance with the GGRP's Mandatory Measure T-1.1, or whether the measure will be implemented at all. The public and decisionmakers are also denied an opportunity to review and comment on the Project's transportation demand management plan and ensure the plan is sufficiently rigorous to reduce GHG emissions in conformance with the City's reduction goals.

In addition to the City's own GGRP requirements, CEQA requires that when performing a qualitative analysis of Project's consistency with measures aimed at reducing GHG emissions, the lead agency must bridge the analytical gap between compliance with applicable programs and the ultimate conclusion regarding project impacts.[68] Specifically, in the context of GHG analysis, the CEQA Guidelines provide that the lead agency must identify requirements of the plans or programs that are applicable to a project, and explain how implementing those requirements would ensure the project's incremental contribution to GHG impacts would be less than significant.[69]

In this case, while the City has taken the first step of identifying the requirements of the GGRP that are applicable to the Project, it has failed to demonstrate how the Project will actually comply with those requirements, other

[66] City of Mountain View Greenhouse Gas Reduction Plan at p. 5-4 (Aug. 2012), *available at* https://www.mountainview.gov/civicax/filebank/blobdload.aspx?blobid=10700,
[67] *Id*. at p. 4-25.
[68] See *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506; *see also* CEQA Guidelines, § 15091.
[69] See CEQA Guidelines, §§ 15183.5; 15064(h)(3).

than stating it will. The DEIR's analysis of consistency with the GGRP fails to satisfy the requirements of CEQA and the GGRP itself. The City must require submittal of a definite and enforceable transportation demand management plan and must include that plan in a recirculated DEIR for public review and comment.

V. The DEIR's Energy Use Analysis Fails to Comply with the Law, Is Unsupported by Substantial Evidence and Underestimates the Project's Impacts from Energy Use

The City's energy use impact analysis in the DEIR fails to comply with CEQA in several ways.

First, the City failed to compare the Project's energy use to energy use associated with the existing environmental setting – a vacant lot and mini storage facility. Before the impacts of a project can be assessed and mitigation measures considered, an EIR must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined.[70] It is a central concept of CEQA, widely accepted by the courts, that the significance of a project's impacts cannot be measured unless the DEIR first establishes the actual physical conditions on the property.

In this case, the City repeatedly states in the DEIR that the Project's energy use is only a small percentage of the overall or projected energy use in the region or state, rather than greater, equal to or less than energy use from the existing setting. For example, the DEIR states:

- [T]he proposed project's increase in annual electricity use, would not result in a significant increase in demand on electrical energy resources in relation to projected supply statewide.[71]

- Based on the relatively small increase in natural gas demand from the project (4,069,180 kBtu per year), and compared to the growth trends in natural gas supply and the existing available supply in California, the

[70] *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 952.
[71] DEIR at p. 67.

proposed project would not result in a significant increase in natural gas demand relative to projected supply.[72]

- Project trips would increase gasoline use at the site by approximately 291,213 gallons of gasoline per year. This increase is small, however, when compared to the annual statewide sales of 15 billion gallons.[73]

The City's comparison of the Project's energy usage to the projected energy use or capacity of the entire State of California is uninformative to the public, improperly minimizes the Project's energy use impacts, and fails to comply with CEQA's requirement to evaluate impacts against the existing baseline. CEQA requires the City to acknowledge, disclose and mitigate the increased energy use compared to the energy use in the existing environmental setting, which in this case is a largely vacant lot with a mini storage facility that the City acknowledges does not consume energy.[74]

Second, the City failed to compare the Project energy use to CEQA's thresholds for measuring wasteful, uneconomic, inefficient or unnecessary consumption of energy in Appendix F and to the more recent threshold set forth in Governor Brown's Executive Order B-55-18. Under CEQA, wasteful, uneconomic, inefficient or unnecessary consumption of energy means exceeding a threshold of significance in the energy use impact areas identified in Appendix F. This includes asking whether the Project's energy requirements by amount and fuel type during construction, operation, maintenance and/or removal and from materials are significant; whether the Project will comply with existing energy standards; whether the Project will have a significant effect on energy resources; and whether the Project will have significant transportation energy use requirements, among other questions. For each of these questions, CEQA Guidelines Appendix F asks whether the project decreases overall per capita energy consumption, decreases reliance on fossil fuels, and increases reliance on renewable energy sources. Appendix F explains that these are the means to ensure wise and efficient use of energy. If a project does not decrease overall per capita energy consumption, decrease reliance on fossil fuels, and increase reliance on renewable energy sources,

[72] *Id.*
[73] *Id.*
[74] *See id.* at p. 63.

then the Project does not ensure wise and efficient use of energy and, therefore, results in a wasteful, inefficient and unnecessary consumption of energy.

Furthermore, the DEIR contains no analysis of whether the Project's energy use is carbon neutral consistent with Governor Brown's Executive Order B-55-18. The question is, for example, whether the project's energy requirements by amount and fuel type during construction, operation, maintenance and/or removal and transportation is carbon neutral. This analysis of carbon neutrality is consistent with Appendix F's explanation of the means to ensure wise and efficient use of energy. The DEIR here contains no such analyses.

Third, the City argues construction activities would not use fuel or energy in a wasteful manner because of the added expenses associated with renting construction equipment, as well as mitigation measures requiring the use of equipment with reduced emissions.[75] However, the City never discloses the anticipated energy usage for Project construction in the first place, or how much the mitigation measures are expected to reduce energy demand. As the Courts have stated, "CEQA EIR requirements are not satisfied by saying an environmental impact is something less than some previously unknown amount."[76]

Fourth, the City failed to evaluate whether renewable energy resources might be available or appropriate and should be incorporated into the Project, as required by CEQA.[77] The DEIR acknowledges that "[e]fficiency and production capabilities would help meet increased electricity demand in the future, such as improving energy efficiency in existing and future buildings, establishing energy efficiency targets, inclusion of microgrids and zero-net energy buildings, and integrating renewable technologies."[78] However, rather than evaluating whether renewable energy resources or the technologies listed can or should be incorporated in the Project, the DEIR effectively concludes the Project's electricity demand would not be significant because *other* projects will be more efficient in the future.[79] The City's analysis is a far cry from evaluating whether renewable energy resources

[75] *Id*. at p. 66.
[76] *California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173, 210
[77] *Id.* at p. 211.
[78] DEIR at pp. 66-67.
[79] *See* CEQA Guidelines, Appendix F ("[CEQA] requires that EIRs include a discussion of the potential energy impacts of proposed projects, *with particular emphasis on avoiding or reducing inefficiency, wasteful and unnecessary consumption of energy*." (Emphasis added).

should be incorporated into the Project and does not ensure that the Project's energy use would be wise and efficient.

In sum, the City's analysis of the Project's energy usage fails to comply with the requirements of CEQA. The City's conclusion that the Project's energy usage would be less than significant is not supported by substantial evidence. Comparing the energy usage of a single residential Project to statewide energy consumption and concluding usage would be insignificant is an apples-to-oranges comparison which prevents the public from meaningfully evaluating the Project's energy usage and the opportunity for greater energy savings.

VI. The DEIR Fails to Adequately Disclose, Analyze, and Mitigate Impacts from Hazardous Soil Vapors

The City's hazards impact analysis in the DEIR fails to comply with CEQA in several ways.

A. The DEIR Fails to Properly Disclose and Analyze Impacts from Soil Vapors on Public Health

In the DEIR Hazards and Hazardous Materials section, under the heading "3.9.4 Issues Not Covered Under CEQA," the City erroneously asserts that the potential for the public, including future residents, to be effected by inhalation of contaminated soil vapors is not a Project impact that the City must analyze under CEQA.[80] Citing the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District*, the City argues in the DEIR that CEQA does not require agencies to analyze and determine the significance of impacts of existing environmental conditions on a project's future users.[81] The DEIR implies that impacts from hazardous soil vapors are within this category of impacts not covered by CEQA.

Contrary to the City's claim, the Supreme Court's opinion in *CBIA v. BAAQMD* demonstrates that the potential impacts of contaminated soil vapors on future Project users is squarely within the scope of CEQA and must be evaluated in

[80] See DEIR at p. 92.
[81] *Id.*

the DEIR.[82] As the Court explained in that case, while CEQA generally does not require an analysis of how existing environmental conditions will impact a Project's future users, CEQA *does* call upon agencies to evaluate a project's "potentially significant *exacerbating* effects on existing environmental hazards – effects that arise because the project brings 'development and people into the area affected.'"[83] The analysis of a project's potential to exacerbate existing conditions is a consequence of CEQA's core requirement that agencies evaluate a project's impact on the environment."[84]

The Court's illustration of this principle in *CBIA* is particularly relevant here:

> Suppose that an agency wants to locate a project next to the site of a long-abandoned gas station. For years, that station pumped gasoline containing methyl tertiary-butyl ether (MTBE), an additive—now banned by California—that can seep into soil and groundwater. Without any additional development in the area, the MTBE might well remain locked in place, an existing condition whose risks—most notably the contamination of the drinking water supply—are limited to the gas station site and its immediate environs. But by virtue of its proposed location, the project threatens to disperse the settled MTBE and thus exacerbate the existing contamination. The agency would have to evaluate the existing condition—here, the presence of MTBE in the soil—as part of its environmental review. Because this type of inquiry still focuses on the *project's impacts on the environment*—how a project might worsen existing conditions—directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole.[85]

Like the above illustration, construction of the Project here has the potential to disturb contaminated soils at the Project site. While the potential effects of the contaminated soil may go unrealized in the absence of the Project, by virtue of the Project's location and type, the Project threatens to disperse the contaminants and expose the public, including future occupants, to hazardous substances, whether

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[82] *California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal. 4th 369, 388-390.
[83] *Id.* at p. 388.
[84] *Id.* at p. 389.
[85] *Id.*

through the underground parking structure or residential units. Indeed, the DEIR implicitly recognizes this risk through its discussion of the potential for soil vapor impacts and the incorporation of a condition of approval requiring the Applicant to prepare a vapor intrusion mitigation strategy.

Due to the Project's potential to exacerbate the effects of existing contamination at the Project and, as a result, potentially expose the public, including future residents, to hazardous soil vapors, CEQA requires that the City disclose this impact, determine the significance of the impact, and, if necessary, identify and incorporate all feasible mitigation.

B. The City Improperly Defers Mitigation of Soil Vapor Impacts, and the City's Condition of Approval is Inconsistent with General Plan Policy INC 18.1

In addition to the City's incorrect assertion that the potential impact of hazardous substances in the Project site soil on the public, including future residents, is not an impact covered by CEQA, the City's conclusion that the Project would be consistent with General Plan Policy INC 18.1 is not supported by substantial evidence.

General Plan Policy INC 18.1 states projects must be designed to "Protect human and environmental health from environmental contamination." The City argues that the Project would be consistent with General Plan Policy INC 18.1 because the City added a condition of approval requiring the applicant to develop a Vapor Intrusion Mitigation System.[86] According to the DEIR, the following condition of approval will be implemented as part of the Project:

> VAPOR INTRUSION MITIGATION SYSTEM: The project applicant shall obtain from the Water Board a letter confirming that the 2014 RAP is still valid and/or the project applicant shall update the RAP to current standards, including updated standards related to indoor TCE exposure. The project applicant shall incorporate Vapor Intrusion Mitigation System drawings and specifications into the City building permit plans. Following completion of construction, the project applicant shall prepare a Vapor Mitigation Completion report documenting installation of the vapor control measures

[86] See DEIR at p. 92.

> and specifying monitoring requirements for the system. These documents should be provided to the RWQCB for review and approval prior to City issuance of occupancy permits for the project. In addition, the project applicant and/or subsequent site owners and occupants shall provide access for future indoor air and soil vapor monitoring activities and shall not interfere with the implementation of remedies selected by the RWQCB and responsible parties. These requirements shall be specified in Covenants, Conditions and Restrictions that shall run with the property.[87]

This condition of approval, however, fails to provide any details of what the VIMS must include, lacks objective performance standards for evaluating the effectiveness of the VIMS, and fails to specify what actions must be taken in the event monitoring reveals adverse impacts. Rather, it defers development of a mitigation system to a later date, after the public environmental review process. Moreover, under the language of the condition, it is sufficient that any vapor mitigation system is installed so long as post-installation documentation is provided to the RWQCB, and some undefined monitoring occurs.

The City's conclusion that the Project would be consistent with the requirements of General Plan Policy INC 18.1 because of the VIMS requirement is not supported by substantial evidence. Even if the City were correct that this is an issue area not covered by CEQA, for the same reasons agencies may not defer development of mitigation measures for a project's potentially significant impacts,[88] the City cannot conclude that the proposed VIMS condition of approval would ensure future users of the Project will be protected from contamination, as required by General Plan Policy INC 18.1.[89] There is no requirement that the VIMS achieve any particular outcome, nor that particular steps be taken in the event monitoring reveals a hazard. The proposed approach also leaves the development of the plan to the Applicant and RWQCB, without specific direction, and prevents the public and decisionmakers from participating in review of the mitigation system and its effectiveness.

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[87] *Id.* at pp. 92-93.
[88] S*ee Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th, 70, 89-96.
[89] Mountain View 2030 General Plan, Policy INC 18.1 Contamination prevention. Protect human and environmental health from environmental contamination.

The City must revise the condition of approval ensure implementation of a VIMS that will protect the public, including future users of the Project, from the Project's exacerbation of hazardous soil vapors. As currently proposed, the condition of approval fails to achieve this goal, and is therefore inconsistent with the requirements of the City's General Plan pertaining to human health and contamination.[90]

VII. Conclusion

For all of the forgoing reasons, the City must prepare and recirculate a revised DEIR in order to adequately disclose, analyze, and mitigate Project impacts to air quality, public health, and GHGs, and to properly disclose and evaluate the impacts of hazardous soil contaminants on the public, including future residents, before considering the entitlements for the proposed Project.

Thank you for your consideration of these comments.

Sincerely,

Collin S. McCarthy

CSM:acp

[90] *See* Mountain View 2030 General Plan at p. 136, available at https://www.mountainview.gov/civicax/filebank/blobdload.aspx?blobid=10702.

Attachment 1

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

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November 23, 2018

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Subject: Comments on the 555 East Evelyn Avenue Residential Project

Dear Mr. McCarthy,

We have reviewed the October 2018 Draft Environmental Impact Report (DEIR) for the 555 East Evelyn Avenue Residential Project ("Project") located in the City of Mountain View ("City"). The Project proposes to demolish a 1.9-acre mini-storage facility in order to construct a two-building 471-unit apartment complex with 668 below-grade parking spaces. The Project also proposes to construct a 0.68-acre public park on the site.

Our review concludes that the DEIR fails to adequately evaluate the Project's Air Quality and Greenhouse Gas (GHG) impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated DEIR should be prepared to adequately assess and mitigate the potential air quality, health risk, and GHG impacts the Project may have on the surrounding environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("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 can change the default values and input project-specific values, but the California Environmental Quality Act (CEQA) requires that such changes be justified by substantial evidence.[2] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and

[1] CalEEMod website, *available at*: http://www.caleemod.com/

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

"output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions, and make known which default values were changed as well as provide justification for the values selected.[3]

When we reviewed the Project's CalEEMod output files, provided as Attachment 2 to the DEIR's Air Quality and Greenhouse Gas Assessment, we found that several of the values inputted into the model were not consistent with information disclosed in the DEIR. As a result, the Project's construction and operational emissions are underestimated. An updated DEIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Use of Incorrect Land Use Size

The Project's CalEEMod output files demonstrates that the square footage of the proposed residential land use was underestimated within the air model. The Project description states that the "western building would be 267,994 square feet in size" and the "eastern building would be 289,090 square feet in size" totaling 557,084 square feet for the residential land use (p. 4). Review of the CalEEMod output files, however, demonstrates that the air model utilized a residential land use size of only 471,000 square feet (see excerpt below) (Appendix C, pp. 35).

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	471.00	Dwelling Unit	5.00	471,000.00	1347
City Park	1.00	Acre	1.00	43,560.00	0
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0

As you can see in the excerpt above, the Project Applicant underestimates the total floor surface area of the residential land use by approximately 86,084 square feet. The land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations.[4] For example, the square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts). Thus, by underestimating the size of the residential land use within the air model, the construction and operational emissions generated by the proposed residential buildings are underestimated and should not be relied upon to determine Project significance.

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[3] CalEEMod User Guide, p. 7, 13, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4 (A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.)

[4] CalEEMod User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/01_user-39-s-guide2016-3-1.pdf?sfvrsn=2, p. 17

Use of Incorrect Off-Road Construction Equipment Usage Hours

Review of the Project's CalEEMod output files reveals that the Project Applicant manually decreased the construction equipment usage hours for several pieces of equipment anticipated for use during Project construction. The altered usage hours inputted for the off-road equipment in the Project's CalEEMod model, however, are underestimated and are inconsistent with information provided within the DEIR, resulting in an underestimation of the Project's construction-related emissions.

The Project Applicant manually reduced the following usage hours for several pieces of off-road construction equipment (see excerpts below) (Appendix C, pp. 37, pp. 41-42).

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	10	2.00	78	0.48
Demolition	Excavators	2	6.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	1	5.00	158	0.38
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	1	1.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	1	5.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Grading	Graders	2	3.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	1	1.00	132	0.36
Demolition	Tractors/Loaders/Backhoes	1	3.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	1.00	46	0.45
Architectural Coating	Aerial Lifts	1	1.00	63	0.31

However, the construction detail table accompanying the CalEEMod output files specifies the Project's anticipated daily usage hours for all pieces of equipment (see excerpt below) (Appendix C, pp. 138).

Qty	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day
	Demolition	Start Date:	1/1/2020	Total phase:	43	
		End Date:	3/1/2020			
	Concrete/Industrial Saws	81	0.73	0		0
2	Excavators	162	0.38	6	40	6
0	Rubber-Tired Dozers	255	0.4			0
1	Tractors/Loaders/Backhoes	97	0.37	6	20	3
	Site Preperation	Start Date:		Total phase:	0	
		End Date:				
	Graders	174	0.41			
	Rubber Tired Dozers	255	0.4			
	Tractors/Loaders/Backhoes	97	0.37			
	Grading / Excavation	Start Date:	3/1/2020	Total phase:	66	
		End Date:	6/1/2020			
	Scrapers	361	0.48			0
1	Excavators	162	0.38	6	60	5
2	Graders	174	0.41	6	30	3
1	Rubber Tired Dozers	255	0.4	6	60	5
	Tractors/Loaders/Backhoes	97	0.37			0
	Other Equipment?					
	Trenching	Start Date:	11/1/2020	Total phase:	45	
		End Date:	1/1/2021			
2	Tractor/Loader/Backhoe	97	0.37	6	60	8
0	Excavators	162	0.38	6	60	8
	Other Equipment?					
	Building - Exterior	Start Date:	3/1/2021	Total phase:	198	
		End Date:	12/1/2021			
1	Cranes	226	0.29	4	20	0
2	Forklifts	89	0.2	6	264	8
NO	Generator Sets	84	0.74	Assume Temp Power		
1	Tractors/Loaders/Backhoes	97	0.37	5	20	1
2	Welders	46	0.45	6	20	1
	Other Equipment?					0
Building - Interior/Architectural Coating		Start Date:	1/1/2021	Total phase:	196	
		End Date:	10/1/2021			
10	Air Compressors	78	0.48	6	50	2
1	Aerial Lift	62	0.31	4	20	0
	Other Equipment?					
	Paving	Start Date:	12/1/2021	Total phase:	23	
		Start Date:	12/31/2021			
	Cement and Mortar Mixers	9	0.56			0
1	Pavers	125	0.42	6	5	1
1	Paving Equipment	130	0.36	6	5	1
	Rollers	80	0.38			0
	Tractors/Loaders/Backhoes	97	0.37			0
	Other Equipment?					

A comparison of the CalEEMod output files and the above construction detail table reveals that the Project Applicant inputted the average number of usage hours per day ("Avg. Hours per day") values provided in the table into the CalEEMod model. This is incorrect, as the CalEEMod User's Guide states that when inputting project-specific information regarding construction equipment (emphasis added), the user "enters the Equipment Type, Number of Units, and ***Hours per Day*** for each piece of equipment that will be used in any phase" into the CalEEMod model.[5] Therefore, the Project Applicant should have inputted the "Hours/day" values provided in the above construction detail table, rather than the average usage hours, into the CalEEMod model to accurately reflect the number of hours per day that each piece of equipment will be in use. By utilizing artificially reduced usage hours for most of the pieces of construction equipment, the air model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance

Updated Air Modeling Input Parameters

In an effort to accurately determine the Project's construction and operational emissions, we prepared an updated CalEEMod model using the most recent CalEEMod version, CalEEMod.2016.3.2, that includes more site-specific information and corrected input parameters. In our updated model for the Project's proposed land uses, we inputted a square footage of 557,084 square feet for the residential land use size to reflect the DEIR's Project description. Additionally, we inputted corrected equipment usage hours to be consistent with the construction detail table provided in Appendix C.

The estimated particulate matter (PM) emissions calculated by our updated air model were used to calculate the health risk impact associated with Project operation, as discussed in the section below.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The Project Applicant conducted a construction health risk assessment (HRA) and concludes that construction of the Project would pose a maximum cancer risk of 3.5 in one million to nearby sensitive receptors, which is less than the Bay Area Air Quality Management District's (BAAQMD) significance threshold of ten in one million (p. 41). As a result, the DEIR claims that the proposed Project would result in a less than significant health risk impact with mitigation (p. 41). This conclusion, however, is incorrect for several reasons. First, as discussed above, the DEIR relies upon a flawed air model to estimate the construction-related health risk posed to the nearest sensitive receptor. Second, the DEIR's construction HRA, provided as Attachment 4 to Appendix C, fails to account for the cancer risk posed to 3rd trimester gestations that will be exposed to construction-related emissions during Project activity (Appendix C, pp. 104). Third, the Project Applicant incorrectly claims that the Project's health risk impact would be less than significant without conducting an operational HRA. As a result, an updated DEIR should be prepared which correctly and adequately assesses and mitigates the proposed Project's health risk impacts to nearby sensitive receptors.

Flawed Analysis of Construction-Related Health Risk

The Air Quality and GHG Assessment, prepared by Illingworth & Rodkin, Inc., evaluates whether mobile source diesel particulate matter (DPM) emissions resulting from Project construction would pose a significant health risk to nearby sensitive receptors (Appendix C, Attachment 4). According to the DEIR,

[5] CalEEMod User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/user's-guide---october-2017.pdf, p. 32

the calculated cancer risk to nearby infant receptors from exposure to DPM emissions during Project construction would be 3.5 in one million (see excerpt below) (Appendix C, pp. 106).

Maximum Impacts at Construction MEI Location - With Mitigation

Emissions Year	Maximum Concentrations Exhaust PM10/DPM (μg/m³)	Maximum Concentrations Fugitive PM2.5 (μg/m³)	Cancer Risk (per million) Infant	Cancer Risk (per million) Adult	Hazard Index (-)	Maximum Annual PM2.5 Concentration (μg/m³)
2020	0.0064	0.0650	1.0	0.0	0.001	0.09
2021	0.0150	0.0485	2.5	0.0	0.003	0.08
Total	-	-	**3.5**	**0.1**		
Maximum	0.0150	0.0650	-	-	**0.003**	**0.09**

As a result, the DEIR concludes that the Project would not cause a significant health risk impact to sensitive receptors near the Project site (p. 41). This conclusion, however, is incorrect. Review of the construction HRA demonstrates that the analysis fails to calculate the cancer risk posed to 3rd trimester gestations, which is inconsistent with recommendations set forth by the Office of Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct HRAs in California (see excerpt below) (Appendix C, pp. 110).

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information DPM Conc (ug/m3) Year	Infant/Child - Exposure Information DPM Conc (ug/m3) Annual	Infant/Child - Exposure Information Age Sensitivity Factor	Infant/Child Cancer Risk (per million)	Adult - Exposure Information Modeled DPM Conc (ug/m3) Year	Adult - Exposure Information Modeled DPM Conc (ug/m3) Annual	Adult - Exposure Information Age Sensitivity Factor	Adult Cancer Risk (per million)	Maximum Fugitive PM2.5	Maximum Total PM2.5
0	0.25	-0.25 - 0*	-	-	10	-	-	-	-	-		
1	1	0 - 1	2019	0.0064	10	1.04	2019	0.0064	1	0.02	0.0650	0.071
2	1	1 - 2	2020	0.0150	10	2.47	2020	0.0150	1	0.04	0.0485	0.063
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						3.51				0.06		

* Third trimester of pregnancy

As the above HRA summary table demonstrates, the cancer risk for 3rd trimester gestations (age -0.25 – 0) was not calculated or included in the reported total excess cancer risk estimations. The cancer risk calculation only represents the cancer risk posed to infant receptors (age 0 – 2). The Project Applicant's failure to assess the construction-related health risk posed to 3rd trimester gestations is incorrect and inconsistent with OEHHA guidance.

OEHHA adopted its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments* in March of 2015.[6] The OEHHA guidelines explicitly state that in order to conduct a cancer risk assessment, the "inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16<70 years."[7] The OEHHA guidelines go on to assert that "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location."[8] Therefore, in accordance with OEHHA guidance, the Project Applicant should have calculated and summed the cancer risk posed to all exposed sensitive receptors during the two-year construction duration, which includes both 3rd trimester gestation and infant receptors.

Furthermore, by failing to conduct the Project's construction HRA using OEHHA methodology, the DEIR fails to follow requirements set forth by the BAAQMD. The BAAQMD's *Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines* states,

> "All HRAs shall be completed by following the procedures described in the OEHHA Health Risk Assessment Guidelines for the Air Toxics Hot Spots Program adopted by OEHHA on March 6, 2015 and using the recommended breathing rates described in the ARB/CAPCOA Risk Management Guidance for Stationary Sources of Air Toxics adopted by ARB on July 23, 2015."[9]

As seen above, BAAQMD guidelines clearly state that projects within BAAQMD jurisdiction must comply with OEHHA guidance when determining a project's health risk. The 555 East Evelyn Avenue Residential Project is located in the City of Mountain View, which is under BAAQMD jurisdiction. As such, because an HRA was prepared for the proposed Project, the HRA should have employed OEHHA guidance in order to accurately account for impacts to all sensitive receptors. By failing to do so, the Project's construction HRA is inconsistent with requirements and guidance set forth by the BAAQMD. Additionally, we previously discussed the ways in which the DEIR's air modeling is incorrect and therefore underestimates the Project's construction air pollutant emissions. As a result, it is critical that the Project Applicant prepare an updated CalEEMod air model and an updated construction HRA to include the cancer risk posed to 3rd trimester gestation receptors in order to more accurately evaluate the Project's health-related impacts.

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[6] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[7] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 5-23
[8] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-4, 8-8
[9] "Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines." BAAQMD, January 2016, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en, p. 1

Failure to Conduct Operational Health Risk Assessment

The DEIR concludes that the proposed Project would have a less than significant impact on the health of sensitive receptors near the Project site without conducting a quantitative HRA for operation (p. 41). The DEIR simply states that "the project would introduce new residents that are sensitive receptors" with no mention of the Project's operational toxic air contaminant (TAC) emissions impacts on existing residential receptors (Appendix C, p. 11). The DEIR fails to conduct a quantified operational HRA for nearby existing sensitive receptors and instead solely relies upon an HRA which evaluates cancer risk posed new on-site receptors. Based on the HRA for new, on-site receptors, the DEIR concludes that the Project would have a less than significant health risk impact (p. 4.2-18). The DEIR justifies this analysis by stating,

> "Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The project would introduce new residents that are sensitive receptors. In addition, temporary project construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors" (Appendix C, p. 11).

The DEIR goes on to conclude,

> "The cancer risks and annual $PM_{2.5}$ concentrations associated with each of these sources would be lower than the BAAQMD significance thresholds of greater than 10.0 in one million and the 0.3 µg/m^3, and would therefore be considered a *less-than-significant* impact" (Appendix C, p. 18).

This significance determination is incorrect, as the Project Applicant cannot claim that the Project would result in a less than significant health risk impact without properly assessing the risk posed to existing sensitive receptors as a result of DPM emissions that will be emitted during Project activities. As a result, until the Project's operational health risk impact is adequately quantified and compared to applicable thresholds, the DEIR cannot make any conclusions with regards to the Project's health-related impacts.

By failing to prepare an operational HRA for existing sensitive receptors, the DEIR is inconsistent with recommendations set forth by the 2015 OEHHA guidelines. The OEHHA guidance document describes the types of projects that warrant the preparation of a health risk assessment.[10] Once construction of the Project is complete, the Project will operate for a long period of time. During operation, the Project will generate vehicle trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to emissions. The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed

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

individual resident (MEIR).[11] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, health risks from Project operation should have also been evaluated by the DEIR, as a 30-year exposure duration vastly exceeds the 6-month requirement set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, an updated assessment of health risks to nearby sensitive receptors from operation should be included in a revised CEQA evaluation for the Project.

In an effort to demonstrate the potential risk posed by the Project to nearby sensitive receptors, we prepared a simple screening-level operational HRA. The results of our assessment, as described below, demonstrate that operational DPM emissions may result in a potentially significant health risk impact that was not previously identified or evaluated within the DEIR.

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening-level air quality dispersion model. [12] The model replaced SCREEN3, which is included in OEHHA[13] and CAPCOA[14] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary health risk screening assessment of the Project's operational impacts to sensitive receptors using the operational annual estimates from SWAPE's updated air model for the proposed Project. The DEIR identifies the location of the residential MEIR near the Project site (p. 40). Using Google Earth, we determined that the MEIR is located approximately 10 meters from the Project site. Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, thus, we evaluated the Project's operational emissions staring in the last 0.25 years of the infant stage of life, immediately after the 24-month construction is completed. We also assumed that construction and operation of the Project would occur sequentially, with no gaps between each Project phase. The CalEEMod model's annual emissions indicate that operational activities will generate approximately 126.6 pounds of DPM per year. The AERSCREEN model relies on a continuous average emissions rate to simulate maximum downwind concentrations from point, area, and volume emissions sources. Subtracting the two-year construction duration from the total residential exposure duration of 30 years, we assumed that after Project construction, the MEIR would be exposed to the Project's

[11] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15
[12] "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[13] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf
[14] "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

operational DPM emissions for an additional 28.25 years approximately. Applying the following equation, we estimated the average DPM emission rate for Project operation.

$$Emission\ Rate\ \left(\frac{gramssecond}{}\right) = \frac{126.6\ lbs}{365\ \ days} \times \frac{453.6\ grams}{lb} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds}$$
$$\approx \mathbf{0.001821}\ {}^{\boldsymbol{g}}/_{\boldsymbol{s}}$$

Operational activity was simulated as a 6-acre rectangular area source in AERSCREEN, with dimensions of 188 meters by 130 meters. A release height of three meters was selected to represent the height of exhaust stacks on construction equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[15] The single-hour concentration estimated by AERSCREEN for Project operation is approximately 2.103 µg/m^3 DPM at approximately 25 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2103 µg/m^3 for operation.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable HRA methodologies prescribed by OEHHA and the BAAQMD. The annualized average concentration for operation was used for the remainder of the 30-year exposure period after the two-year construction period, which makes up the remainder of the infant stage of life, the entirety of the child stage of life (2 to 16 years), and the entirety of the adult stage of life (16 to 30 years). Consistent with OEHHA guidance and the DEIR's construction HRA, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[16] According to the updated OEHHA guidance, quantified cancer risk should be multiplied by a factor of ten during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used 95th percentile breathing rates for infants.[17] Finally, consistent with the DEIR's construction HRA, we used a Fraction of Time At Home (FAH) Value of 1 for the 3rd trimester, infant, and child receptors and we used a FAH Value of 0.73 for the adult receptors. We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

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[15] http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf

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

[17] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

Operational Cancer Risk at the Maximum Exposed Individual Residential Receptor					
Parameter	**Description**	**Units**	**Infant**	**Child**	**Adult**
Cair	Concentration	$\mu g/m^3$	0.2103	0.2103	0.2103
DBR	Daily breathing rate	L/kg-day	1090	572	261
EF	Exposure Frequency	days/year	350	350	350
ED	Exposure Duration	years	0.25	14	14
AT	Averaging Time	days	25550	25550	25550
	Inhaled Dose	(mg/kg-day)	7.9E-07	2.3E-05	1.1E-05
CPF	Cancer Potency Factor	1/(mg/kg-day)	1.1	1.1	1.1
ASF	Age Sensitivity Factor	-	10	3	1
FAH	Fraction of Time at Home	-	1	1	0.73
	Cancer Risk by Age Group		***8.6E-06***	***7.6E-05***	***8.5E-06***
	Total Operational Cancer Risk				**9.3E-05**

As demonstrated above, the excess cancer risk to adults, children, and infants at a sensitive receptor located approximately 25 meters away, over the course of Project operation, are approximately 8.5, 76, and 8.6 in one million, respectively. Furthermore, the excess operational cancer risk over the course of Project operation (28.25 years) is approximately 93 in one million. The child and lifetime operational cancer risk greatly exceed the BAAQMD's threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the DEIR.

Furthermore, as previously stated, the 2015 OEHHA guidance document states that when calculating the total cancer risk impact associated with a project, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location."[18] Thus, the guidance expressly states that the combined construction and operational excess cancer risks should be evaluated to make a significance determination at a sensitive receptor location. Based on the DEIR's underestimated construction cancer risk estimate and SWAPE's screening-level operational HRA, the combined cancer risk for construction and operation of the proposed Project would be approximately 96.5 in one million.[19] Therefore, it can be assumed that with updated construction HRA calculations, the Project's lifetime cancer risk estimate would far exceed the BAAQMD's significance threshold of 10 in one million.

It should be noted that our operational analysis represents a screening-level HRA, which is known to be more conservative, and tends to err on the side of health protection, in contrast to the more refined construction HRA prepared by the Project Applicant.[20] The purpose of a screening-level HRA, however, is

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[18] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-4, 8-8

[19] Combined Lifetime Cancer Risk = DEIR Construction Cancer Risk + SWAPE Operational Cancer Risk = 3.5 in one million + 93 in one million = 96.5 in one million.

[20] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf p. 1-5

to determine if a more refined HRA needs to be conducted. If the results of a screening-level assessment are above applicable thresholds, then the Project needs to conduct a more refined HRA that is more representative of site-specific concentrations. Our screening-level HRA demonstrates that operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined operational HRA as well as updated construction HRA calculations must be prepared to examine air quality impacts generated by Project construction and operation using site-specific meteorology. An updated DEIR should be prepared to adequately evaluate the Project's health risk impact and should include additional mitigation measures to reduce these impacts to a less-than-significant level.

Greenhouse Gas

Failure to Adequately Evaluate the Project's Greenhouse Gas Impacts

The DEIR concludes that the Project would not result in a significant GHG impact because it would include several measures to support the BAAQMD's 2017 Clean Air Plan (CAP) and the City's Greenhouse Gas Reduction Plan (GGRP). The DEIR states that "the proposed project would implement relevant measures from the 2017 CAP and the City's GGRP; therefore, it would not conflict an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs" (p. 79). The DEIR, however, fails to adequately demonstrate compliance with the City's GGRP and therefore cannot claim a less than significant GHG impact.

The Applicant asserts that the proposed Project would be consistent with the GHG reduction measures mandated by the City' GGRP, stating,

> "The GGRP identifies a series of GHG emissions reduction measures to be implemented by development projects that would allow the City to achieve its GHG reduction goals. In the GGRP, Mandatory Measure E-1.6, which reinforces the implementation of MVGBC codes for energy efficiency that exceed Title 24 requirements. The project would plant trees on- and off-site, consistent with Measure E-1.8 Building Shade Trees in Residential Development. The project also proposes to implement a TDM plan at the project site, consistent with T-1.1, Transportation Demand Management" (p. 79).

The DEIR claims that because the Project will implement these strategies, the Project's GHG impact would be less than significant (p. 79). This conclusion, however, is incorrect, as the DEIR fails to comply with the requirements of Mandatory Measure T-1.1 regarding the preparation of a Transportation Demand Management (TDM) plan. In order to ensure that the City's GGRP measures translate into on-the-ground results, the GGRP asserts that "the proposed project would describe how each measure would be integrated into the development in its application materials and environmental documentation."[21] Additionally, the City's GGRP Measure T-1.1 explicitly requires that projects develop transportation demand management plans prior to project review. The GGRP requires that "at the time of project review, all subject development will submit to the City a qualified Transportation Demand

[21] City of Mountain View Greenhouse Gas Reduction Plan. August 2012, *available at*: https://www.mountainview.gov/civicax/filebank/blobdload.aspx?blobid=10700, p. 5-4

Management Plan that demonstrates compliance with the required TDM performance standard."[22] The DEIR, however, simply proposes to implement a TDM plan, yet fails to demonstrate how Mandatory Measure T-1.1 would be achieved through Project activities, and fails to submit a TDM plan at the time of Project review.

As a result, it is unclear how the Project Applicant will achieve compliance with the GGRP's Mandatory Measure T-1.1, or whether the measure will be implemented at all. Thus, the DEIR cannot simply state that the Project is consistent with the City's GGRP and thereby conclude that the Project's GHG impact is less than significant, as the DEIR fails to actually demonstrate compliance with the applicable criteria disclosed in the City's GGRP. By failing to prepare a robust TDM plan to undergo review, the DEIR's claimed consistency with the GGRP and actual GHG emissions reductions cannot be verified or ensured. Until the Applicant prepares a thorough TDM plan for review, as well as describes how the plan will be integrated into Project activities, the Project is not consistent with the City's GGRP and cannot claim a less than significant GHG impact.

Sincerely,

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

Hadley Nolan

[22] City of Mountain View Greenhouse Gas Reduction Plan. August 2012, *available at*: https://www.mountainview.gov/civicax/filebank/blobdload.aspx?blobid=10700, p. 4-25

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

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

Education:

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

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

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

Positions Matt has held include:

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

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

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, 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.

<u>Other Experience:</u>

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

HADLEY KATHRYN NOLAN

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Email: hadley@swape.com

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES **B.S. ENVIRONMENTAL SCIENCES & ENVIRONMENTAL SYSTEMS AND SOCIETY** *JUNE 2016*

PROJECT EXPERIENCE

SOIL WATER AIR PROTECTION ENTERPRISE ***SANTA MONICA, CA***

AIR QUALITY SPECIALIST

SENIOR PROJECT ANALYST: CEQA ANALYSIS & MODELING

- Modeled construction and operational activities for proposed land use projects using CalEEMod to quantify criteria air pollutant and greenhouse gas (GHG) emissions.
- Organized presentations containing figures and tables that compare results of criteria air pollutant analyses to thresholds.
- Quantified ambient air concentrations at sensitive receptor locations using AERSCREEN, a U.S. EPA recommended screening level dispersion model.
- Conducted construction and operational health risk assessments for residential, worker, and school children sensitive receptors.
- Prepared reports that discuss adequacy of air quality and health risk analyses conducted for proposed land use developments subject to CEQA review by verifying compliance with local, state, and regional regulations.

SENIOR PROJECT ANALYST: GREENHOUSE GAS MODELING AND DETERMINATION OF SIGNIFICANCE

- Evaluated environmental impact reports for proposed projects to identify discrepancies with the methods used to quantify and assess GHG impacts.
- Quantified GHG emissions for proposed projects using CalEEMod to produce reports, tables, and figures that compare emissions to applicable CEQA thresholds and reduction targets.
- Determined compliance of proposed land use developments with AB 32 GHG reduction targets, with GHG significance thresholds recommended by Air Quality Management Districts in California, and with guidelines set forth by CEQA.

PROJECT ANALYST: ASSESSMENT OF AIR QUALITY IMPACTS FROM PROPOSED DIRECT TRANSFER FACILITY

- Assessed air quality impacts resulting from implementation of a proposed Collection Service Agreement for Exclusive Residential and Commercial Garbage, Recyclable Materials, and Organic Waste Collection Services for a community.
- Organized tables and maps to demonstrate potential air quality impacts resulting from proposed hauling trip routes.
- Conducted air quality analyses that compared quantified criteria air pollutant emissions released during construction of direct transfer facility to the Bay Area Air Quality Management District's (BAAQMD) significance thresholds.
- Prepared final analytical report to demonstrate local and regional air quality impacts, as well as GHG impacts.

PROJECT ANALYST: EXPOSURE ASSESSMENT OF LEAD PRODUCTS FOR PROPOSITION 65 COMPLIANCE DETERMINATION

- Calculated human exposure and lifetime health risk for over 300 lead products undergoing Proposition 65 compliance review.
- Compiled and analyzed laboratory testing data and produced tables, charts, and graphs to exhibit emission levels.
- Compared finalized testing data to Proposition 65 Maximum Allowable Dose Levels (MADLs) to determine level of compliance.
- Prepared final analytical lead exposure Certificate of Merit (COM) reports and organized supporting data for use in environmental enforcement statute Proposition 65 cases.

ACCOMPLISHMENTS

- **Academic Honoree,** Dean's List, University of California, Los Angeles ***MAR 2013, MAR 2014, JAN 2015, JAN 2016***

555 E. Evelyn Mountain View

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Mid Rise	471.00	Dwelling Unit	5.00	557,084.00	1347

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2020

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 290 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with Project CalEEMod.

Land Use - Consistent with DEIR information.

Construction Phase - Consistent with Project CalEEMod.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Trips and VMT - Consistent with Project CalEEMod.

Demolition - Consistent with Project CalEEMod.

Grading - Consistent with Project CalEEMod.

Vehicle Trips - Consistent with Project CalEEMod.

Woodstoves - Consistent with Project CalEEMod.

Energy Use -

Water And Wastewater - Consistent with Project CalEEMod.

Construction Off-road Equipment Mitigation - Consistent with Project CalEEMod.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	196.00
tblConstructionPhase	NumDays	230.00	198.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	23.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	70.65	150.72
tblFireplaces	NumberWood	80.07	0.00
tblGrading	AcresOfGrading	49.50	6.00
tblGrading	MaterialExported	0.00	135,160.00
tblLandUse	LandUseSquareFeet	471,000.00	557,084.00
tblLandUse	LotAcreage	6.01	0.00

tblLandUse	LotAcreage	12.39	5.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

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tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
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tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	5.00
tblVehicleTrips	ST_TR	6.39	5.78
tblVehicleTrips	SU_TR	5.86	5.30
tblVehicleTrips	WD_TR	6.65	6.01
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020						0.0863	0.2710		0.0797	0.1679						
2021						0.1550	0.2058		0.1522	0.1660						
Maximum						**0.1550**	**0.2710**		**0.1522**	**0.1679**						

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					
2020						0.0390	0.2237		0.0364	0.1246						
2021						0.0373	0.0880		0.0367	0.0505						
Maximum						**0.0390**	**0.2237**		**0.0367**	**0.1246**						

	ROG	**NOx**	**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**	**68.38**	**34.61**	**0.00**	**68.46**	**47.56**	**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)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area						0.0206	0.0206		0.0206	0.0206						
Energy						0.0152	0.0152		0.0152	0.0152						
Mobile						0.0275	2.4099		0.0258	0.6636						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total						**0.0633**	**2.4457**		**0.0616**	**0.6994**						

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area						0.0206	0.0206		0.0206	0.0206						
Energy						0.0152	0.0152		0.0152	0.0152						
Mobile						0.0275	2.4099		0.0258	0.6636						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total						**0.0633**	**2.4457**		**0.0616**	**0.6994**						

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/1/2020	5	43	
2	Grading	Grading	3/1/2020	6/1/2020	5	66	
3	Trenching	Trenching	11/1/2020	1/1/2021	5	45	
4	Architectural Coating	Architectural Coating	1/1/2021	10/1/2021	5	196	
5	Building Construction	Building Construction	3/1/2021	12/1/2021	5	198	
6	Paving	Paving	12/1/2021	12/31/2021	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 1,128,095; Residential Outdoor: 376,032; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 16,032 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	6.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Excavators	1	6.00	162	0.38
Grading	Graders	2	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Building Construction	Welders	2	6.00	46	0.45
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	1	4.00	63	0.31
Architectural Coating	Air Compressors	10	6.00	78	0.48
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37

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	8.00	0.00	248.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	7	10.00	0.00	16,895.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	470.00	101.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	4	5.00	0.00	74.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	94.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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						0.0000	0.0169		0.0000	2.5600e-003						
Off-Road						0.0341	0.0341		0.0318	0.0318						
Total						**0.0341**	**0.0511**		**0.0318**	**0.0343**						

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						1.0000e-005	1.2000e-004		1.0000e-005	4.0000e-005						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	1.3000e-004		0.0000	4.0000e-005						
Total						**1.0000e-005**	**2.5000e-004**		**1.0000e-005**	**8.0000e-005**						

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						0.0000	0.0169		0.0000	2.5600e-003						
Off-Road						0.0217	0.0217		0.0203	0.0203						
Total						**0.0217**	**0.0386**		**0.0203**	**0.0229**						

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						1.0000e-005	1.2000e-004		1.0000e-005	4.0000e-005						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	1.3000e-004		0.0000	4.0000e-005						
Total						**1.0000e-005**	**2.5000e-004**		**1.0000e-005**	**8.0000e-005**						

3.3 Grading - 2020

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						0.0000	0.1599		0.0000	0.0834						
Off-Road						0.0469	0.0469		0.0431	0.0431						
Total						**0.0469**	**0.2068**		**0.0431**	**0.1266**						

3.3 Grading - 2020

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						8.2000e-004	8.1500e-003		7.8000e-004	2.8100e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	2.5000e-004		0.0000	7.0000e-005						
Total						**8.2000e-004**	**8.4000e-003**		**7.8000e-004**	**2.8800e-003**						

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						0.0000	0.1599		0.0000	0.0834						
Off-Road						0.0145	0.0145		0.0134	0.0134						
Total						**0.0145**	**0.1744**		**0.0134**	**0.0969**						

3.3 Grading - 2020

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						8.2000e-004	8.1500e-003		7.8000e-004	2.8100e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	2.5000e-004		0.0000	7.0000e-005						
Total						**8.2000e-004**	**8.4000e-003**		**7.8000e-004**	**2.8800e-003**						

3.4 Trenching - 2020

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						4.3900e-003	4.3900e-003		4.0400e-003	4.0400e-003						
Total						**4.3900e-003**	**4.3900e-003**		**4.0400e-003**	**4.0400e-003**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	8.0000e-005		0.0000	2.0000e-005						
Total						**0.0000**	**8.0000e-005**		**0.0000**	**2.0000e-005**						

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						1.9800e-003	1.9800e-003		1.8300e-003	1.8300e-003						
Total						**1.9800e-003**	**1.9800e-003**		**1.8300e-003**	**1.8300e-003**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	8.0000e-005		0.0000	2.0000e-005						
Total						**0.0000**	**8.0000e-005**		**0.0000**	**2.0000e-005**						

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005						
Total						**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**						

3.4 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	0.0000		0.0000	0.0000						
Total						**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					
Off-Road						4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005						
Total						**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**						

3.4 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	0.0000		0.0000	0.0000						
Total						**0.0000**	**0.0000**		**0.0000**	**0.0000**						

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating						0.0000	0.0000		0.0000	0.0000						
Off-Road						0.0928	0.0928		0.0927	0.0927						
Total						**0.0928**	**0.0928**		**0.0927**	**0.0927**						

3.5 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.0000e-005	6.9400e-003		8.0000e-005	1.9200e-003						
Total						**9.0000e-005**	**6.9400e-003**		**8.0000e-005**	**1.9200e-003**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating						0.0000	0.0000		0.0000	0.0000						
Off-Road						5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003						
Total						**5.7700e-003**	**5.7700e-003**		**5.7700e-003**	**5.7700e-003**						

3.5 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.0000e-005	6.9400e-003		8.0000e-005	1.9200e-003						
Total						**9.0000e-005**	**6.9400e-003**		**8.0000e-005**	**1.9200e-003**						

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						0.0565	0.0565		0.0542	0.0542						
Total						**0.0565**	**0.0565**		**0.0542**	**0.0542**						

3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.3000e-004	9.7700e-003		5.1000e-004	3.2100e-003						
Worker						4.6000e-004	0.0351		4.3000e-004	9.6800e-003						
Total						**9.9000e-004**	**0.0448**		**9.4000e-004**	**0.0129**						

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						0.0275	0.0275		0.0273	0.0273						
Total						**0.0275**	**0.0275**		**0.0273**	**0.0273**						

3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.3000e-004	9.7700e-003		5.1000e-004	3.2100e-003						
Worker						4.6000e-004	0.0351		4.3000e-004	9.6800e-003						
Total						**9.9000e-004**	**0.0448**		**9.4000e-004**	**0.0129**						

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						4.5600e-003	4.5600e-003		4.1900e-003	4.1900e-003						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**4.5600e-003**	**4.5600e-003**		**4.1900e-003**	**4.1900e-003**						

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	4.0000e-005		0.0000	1.0000e-005						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	4.0000e-005		0.0000	1.0000e-005						
Total						**0.0000**	**8.0000e-005**		**0.0000**	**2.0000e-005**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road						2.8300e-003	2.8300e-003		2.6100e-003	2.6100e-003						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**2.8300e-003**	**2.8300e-003**		**2.6100e-003**	**2.6100e-003**						

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling						0.0000	4.0000e-005		0.0000	1.0000e-005						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						0.0000	4.0000e-005		0.0000	1.0000e-005						
Total						**0.0000**	**8.0000e-005**		**0.0000**	**2.0000e-005**						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated						0.0275	2.4099		0.0258	0.6636						
Unmitigated						0.0275	2.4099		0.0258	0.6636						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,830.71	2,722.38	2496.30	6,391,749	6,391,749
City Park	1.89	22.75	16.74	14,926	14,926
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	2,832.60	2,745.13	2,513.04	6,406,675	6,406,675

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
City Park	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
Enclosed Parking with Elevator	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

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						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated						0.0152	0.0152		0.0152	0.0152						
NaturalGas Unmitigated						0.0152	0.0152		0.0152	0.0152						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.06918e +006						0.0152	0.0152		0.0152	0.0152						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0152**	**0.0152**		**0.0152**	**0.0152**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.06918e +006						0.0152	0.0152		0.0152	0.0152						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0152**	**0.0152**		**0.0152**	**0.0152**						

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.94445e +006				
City Park	0				
Enclosed Parking with Elevator	1.56579e +006				
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.94445e +006				
City Park	0				
Enclosed Parking with Elevator	1.56579e +006				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated						0.0206	0.0206		0.0206	0.0206						
Unmitigated						0.0206	0.0206		0.0206	0.0206						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003						
Landscaping						0.0193	0.0193		0.0193	0.0193						
Total						**0.0206**	**0.0206**		**0.0206**	**0.0206**						

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003						
Landscaping						0.0193	0.0193		0.0193	0.0193						
Total						**0.0206**	**0.0206**		**0.0206**	**0.0206**						

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	30.6875 / 19.3465				
City Park	0 / 1.19148				
Enclosed Parking with Elevator	0 / 0				
Total					

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	30.6875 / 19.3465				
City Park	0 / 1.19148				
Enclosed Parking with Elevator	0 / 0				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	216.66				
City Park	0.09				
Enclosed Parking with Elevator	0				
Total					

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	216.66				
City Park	0.09				
Enclosed Parking with Elevator	0				
Total					

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

555 E. Evelyn Mountain View

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Mid Rise	471.00	Dwelling Unit	5.00	557,084.00	1347

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 58

Climate Zone 4 **Operational Year** 2020

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 290 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with Project CalEEMod.

Land Use - Consistent with DEIR information.

Construction Phase - Consistent with Project CalEEMod.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Trips and VMT - Consistent with Project CalEEMod.

Demolition - Consistent with Project CalEEMod.

Grading - Consistent with Project CalEEMod.

Vehicle Trips - Consistent with Project CalEEMod.

Woodstoves - Consistent with Project CalEEMod.

Energy Use -

Water And Wastewater - Consistent with Project CalEEMod.

Construction Off-road Equipment Mitigation - Consistent with Project CalEEMod.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	196.00
tblConstructionPhase	NumDays	230.00	198.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	23.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	70.65	150.72
tblFireplaces	NumberWood	80.07	0.00
tblGrading	AcresOfGrading	49.50	6.00
tblGrading	MaterialExported	0.00	135,160.00
tblLandUse	LandUseSquareFeet	471,000.00	557,084.00
tblLandUse	LotAcreage	6.01	0.00

tblLandUse	LotAcreage	12.39	5.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	156.00	248.00
tblTripsAndVMT	HaulingTripNumber	0.00	74.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	5.00
tblVehicleTrips	ST_TR	6.39	5.78
tblVehicleTrips	SU_TR	5.86	5.30
tblVehicleTrips	WD_TR	6.65	6.01
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020						3.0327	8.9121		2.8068	5.5224						
2021						1.5280	2.0580		1.5036	1.6472						
Maximum						**3.0327**	**8.9121**		**2.8068**	**5.5224**						

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					
2020						1.4728	7.3522		1.3764	4.0920						
2021						0.5339	0.9983		0.5121	0.6383						
Maximum						**1.4728**	**7.3522**		**1.3764**	**4.0920**						

	ROG	**NOx**	**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**	**56.00**	**23.88**	**0.00**	**56.19**	**34.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area						0.4505	0.4505		0.4505	0.4505						
Energy						0.0831	0.0831		0.0831	0.0831						
Mobile						0.1553	14.0878		0.1457	3.8648						
Total						**0.6888**	**14.6213**		**0.6792**	**4.3984**						

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						0.4505	0.4505		0.4505	0.4505						
Energy						0.0831	0.0831		0.0831	0.0831						
Mobile						0.1553	14.0878		0.1457	3.8648						
Total						**0.6888**	**14.6213**		**0.6792**	**4.3984**						

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/1/2020	5	43	
2	Grading	Grading	3/1/2020	6/1/2020	5	66	
3	Trenching	Trenching	11/1/2020	1/1/2021	5	45	
4	Architectural Coating	Architectural Coating	1/1/2021	10/1/2021	5	196	
5	Building Construction	Building Construction	3/1/2021	12/1/2021	5	198	
6	Paving	Paving	12/1/2021	12/31/2021	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 1,128,095; Residential Outdoor: 376,032; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 16,032 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	6.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Excavators	1	6.00	162	0.38
Grading	Graders	2	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Building Construction	Welders	2	6.00	46	0.45
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	1	4.00	63	0.31
Architectural Coating	Air Compressors	10	6.00	78	0.48
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37

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	8.00	0.00	248.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	7	10.00	0.00	16,895.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	470.00	101.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	4	5.00	0.00	74.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	94.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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						0.0000	0.7870		0.0000	0.1192						
Off-Road						1.5877	1.5877		1.4765	1.4765						
Total						**1.5877**	**2.3746**		**1.4765**	**1.5957**						

3.2 Demolition - 2020

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						5.2000e-004	5.6800e-003		5.0000e-004	1.9200e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						8.0000e-005	6.2400e-003		7.0000e-005	1.7200e-003						
Total						**6.0000e-004**	**0.0119**		**5.7000e-004**	**3.6400e-003**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	0.7870		0.0000	0.1192						
Off-Road						1.0091	1.0091		0.9462	0.9462						
Total						**1.0091**	**1.7961**		**0.9462**	**1.0654**						

3.2 Demolition - 2020

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						5.2000e-004	5.6800e-003		5.0000e-004	1.9200e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						8.0000e-005	6.2400e-003		7.0000e-005	1.7200e-003						
Total						**6.0000e-004**	**0.0119**		**5.7000e-004**	**3.6400e-003**						

3.3 Grading - 2020

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						0.0000	4.8446		0.0000	2.5282						
Off-Road						1.4211	1.4211		1.3074	1.3074						
Total						**1.4211**	**6.2657**		**1.3074**	**3.8356**						

3.3 Grading - 2020

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						0.0232	0.2520		0.0222	0.0854						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						1.0000e-004	7.8000e-003		9.0000e-005	2.1500e-003						
Total						**0.0233**	**0.2598**		**0.0223**	**0.0875**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	4.8446		0.0000	2.5282						
Off-Road						0.4398	0.4398		0.4073	0.4073						
Total						**0.4398**	**5.2844**		**0.4073**	**2.9355**						

3.3 Grading - 2020

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						0.0232	0.2520		0.0222	0.0854						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						1.0000e-004	7.8000e-003		9.0000e-005	2.1500e-003						
Total						**0.0233**	**0.2598**		**0.0223**	**0.0875**						

3.4 Trenching - 2020

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						0.1997	0.1997		0.1837	0.1837						
Total						**0.1997**	**0.1997**		**0.1837**	**0.1837**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

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						0.0902	0.0902		0.0833	0.0833						
Total						**0.0902**	**0.0902**		**0.0833**	**0.0833**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.1677	0.1677		0.1543	0.1543						
Total						**0.1677**	**0.1677**		**0.1543**	**0.1543**						

3.4 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

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						0.0764	0.0764		0.0707	0.0707						
Total						**0.0764**	**0.0764**		**0.0707**	**0.0707**						

3.4 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating						0.0000	0.0000		0.0000	0.0000						
Off-Road						0.9467	0.9467		0.9462	0.9462						
Total						**0.9467**	**0.9467**		**0.9462**	**0.9462**						

3.5 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.4000e-004	0.0733		8.6000e-004	0.0202						
Total						**9.4000e-004**	**0.0733**		**8.6000e-004**	**0.0202**						

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						0.0000	0.0000		0.0000	0.0000						
Off-Road						0.0589	0.0589		0.0589	0.0589						
Total						**0.0589**	**0.0589**		**0.0589**	**0.0589**						

3.5 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.4000e-004	0.0733		8.6000e-004	0.0202						
Total						**9.4000e-004**	**0.0733**		**8.6000e-004**	**0.0202**						

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.5706	0.5706		0.5473	0.5473						
Total						**0.5706**	**0.5706**		**0.5473**	**0.5473**						

3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.0900e-003	0.1011		4.8600e-003	0.0327						
Worker						4.6800e-003	0.3664		4.3100e-003	0.1008						
Total						**9.7700e-003**	**0.4674**		**9.1700e-003**	**0.1335**						

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						0.2781	0.2781		0.2757	0.2757						
Total						**0.2781**	**0.2781**		**0.2757**	**0.2757**						

3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.0900e-003	0.1011		4.8600e-003	0.0327						
Worker						4.6800e-003	0.3664		4.3100e-003	0.1008						
Total						**9.7700e-003**	**0.4674**		**9.1700e-003**	**0.1335**						

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.3965	0.3965		0.3648	0.3648						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**0.3965**	**0.3965**		**0.3648**	**0.3648**						

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						2.6000e-004	3.1300e-003		2.4000e-004	1.0400e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**3.1000e-004**	**7.0300e-003**		**2.9000e-004**	**2.1100e-003**						

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						0.2458	0.2458		0.2270	0.2270						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**0.2458**	**0.2458**		**0.2270**	**0.2270**						

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						2.6000e-004	3.1300e-003		2.4000e-004	1.0400e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**3.1000e-004**	**7.0300e-003**		**2.9000e-004**	**2.1100e-003**						

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						0.1553	14.0878		0.1457	3.8648						
Unmitigated						0.1553	14.0878		0.1457	3.8648						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,830.71	2,722.38	2496.30	6,391,749	6,391,749
City Park	1.89	22.75	16.74	14,926	14,926
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	2,832.60	2,745.13	2,513.04	6,406,675	6,406,675

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
City Park	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
Enclosed Parking with Elevator	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

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						0.0831	0.0831		0.0831	0.0831						
NaturalGas Unmitigated						0.0831	0.0831		0.0831	0.0831						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11148.4						0.0831	0.0831		0.0831	0.0831						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0831**	**0.0831**		**0.0831**	**0.0831**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11.1484						0.0831	0.0831		0.0831	0.0831						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0831**	**0.0831**		**0.0831**	**0.0831**						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated						0.4505	0.4505		0.4505	0.4505						
Unmitigated						0.4505	0.4505		0.4505	0.4505						

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						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						0.2358	0.2358		0.2358	0.2358						
Landscaping						0.2146	0.2146		0.2146	0.2146						
Total						**0.4505**	**0.4505**		**0.4505**	**0.4505**						

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						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						0.2358	0.2358		0.2358	0.2358						
Landscaping						0.2146	0.2146		0.2146	0.2146						
Total						**0.4505**	**0.4505**		**0.4505**	**0.4505**						

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

555 E. Evelyn Mountain View

Santa Clara County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Mid Rise	471.00	Dwelling Unit	5.00	557,084.00	1347

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with Project CalEEMod.

Land Use - Consistent with DEIR information.

Construction Phase - Consistent with Project CalEEMod.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Off-road Equipment - Consistent with DEIR equipment list.

Trips and VMT - Consistent with Project CalEEMod.

Demolition - Consistent with Project CalEEMod.

Grading - Consistent with Project CalEEMod.

Vehicle Trips - Consistent with Project CalEEMod.

Woodstoves - Consistent with Project CalEEMod.

Energy Use -

Water And Wastewater - Consistent with Project CalEEMod.

Construction Off-road Equipment Mitigation - Consistent with Project CalEEMod.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	196.00
tblConstructionPhase	NumDays	230.00	198.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	23.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	70.65	150.72
tblFireplaces	NumberWood	80.07	0.00
tblGrading	AcresOfGrading	49.50	6.00
tblGrading	MaterialExported	0.00	135,160.00
tblLandUse	LandUseSquareFeet	471,000.00	557,084.00
tblLandUse	LotAcreage	6.01	0.00

tblLandUse	LotAcreage	12.39	5.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	158.00	162.00
tblOffRoadEquipment	HorsePower	187.00	174.00
tblOffRoadEquipment	HorsePower	130.00	125.00
tblOffRoadEquipment	HorsePower	132.00	130.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	156.00	248.00
tblTripsAndVMT	HaulingTripNumber	0.00	74.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	8.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	10.00	5.00
tblVehicleTrips	ST_TR	6.39	5.78
tblVehicleTrips	SU_TR	5.86	5.30
tblVehicleTrips	WD_TR	6.65	6.01
tblWater	AerobicPercent	87.46	100.00

tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020						3.0367	8.9161		2.8106	5.5262						
2021						1.5288	2.0588		1.5043	1.6479						
Maximum						**3.0367**	**8.9161**		**2.8106**	**5.5262**						

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					
2020						1.4768	7.3562		1.3802	4.0958						
2021						0.5347	0.9991		0.5128	0.6390						
Maximum						**1.4768**	**7.3562**		**1.3802**	**4.0958**						

	ROG	**NOx**	**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**	**55.94**	**23.87**	**0.00**	**56.13**	**34.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area						0.4505	0.4505		0.4505	0.4505						
Energy						0.0831	0.0831		0.0831	0.0831						
Mobile						0.1563	14.0888		0.1466	3.8658						
Total						**0.6898**	**14.6223**		**0.6801**	**4.3993**						

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						0.4505	0.4505		0.4505	0.4505						
Energy						0.0831	0.0831		0.0831	0.0831						
Mobile						0.1563	14.0888		0.1466	3.8658						
Total						**0.6898**	**14.6223**		**0.6801**	**4.3993**						

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/1/2020	5	43	
2	Grading	Grading	3/1/2020	6/1/2020	5	66	
3	Trenching	Trenching	11/1/2020	1/1/2021	5	45	
4	Architectural Coating	Architectural Coating	1/1/2021	10/1/2021	5	196	
5	Building Construction	Building Construction	3/1/2021	12/1/2021	5	198	
6	Paving	Paving	12/1/2021	12/31/2021	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6

Acres of Paving: 0

Residential Indoor: 1,128,095; Residential Outdoor: 376,032; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 16,032 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	2	6.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Excavators	1	6.00	162	0.38
Grading	Graders	2	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	5.00	97	0.37
Building Construction	Welders	2	6.00	46	0.45
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Aerial Lifts	1	4.00	63	0.31
Architectural Coating	Air Compressors	10	6.00	78	0.48
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37

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	8.00	0.00	248.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	7	10.00	0.00	16,895.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	470.00	101.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	4	5.00	0.00	74.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	94.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	0.7870		0.0000	0.1192						
Off-Road						1.5877	1.5877		1.4765	1.4765						
Total						**1.5877**	**2.3746**		**1.4765**	**1.5957**						

3.2 Demolition - 2020

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						6.1000e-004	5.7700e-003		5.8000e-004	2.0100e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						8.0000e-005	6.2400e-003		7.0000e-005	1.7200e-003						
Total						**6.9000e-004**	**0.0120**		**6.5000e-004**	**3.7300e-003**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	0.7870		0.0000	0.1192						
Off-Road						1.0091	1.0091		0.9462	0.9462						
Total						**1.0091**	**1.7961**		**0.9462**	**1.0654**						

3.2 Demolition - 2020

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						6.1000e-004	5.7700e-003		5.8000e-004	2.0100e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						8.0000e-005	6.2400e-003		7.0000e-005	1.7200e-003						
Total						**6.9000e-004**	**0.0120**		**6.5000e-004**	**3.7300e-003**						

3.3 Grading - 2020

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						0.0000	4.8446		0.0000	2.5282						
Off-Road						1.4211	1.4211		1.3074	1.3074						
Total						**1.4211**	**6.2657**		**1.3074**	**3.8356**						

3.3 Grading - 2020

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						0.0271	0.2560		0.0259	0.0891						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						1.0000e-004	7.8000e-003		9.0000e-005	2.1500e-003						
Total						**0.0272**	**0.2638**		**0.0260**	**0.0913**						

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	4.8446		0.0000	2.5282						
Off-Road						0.4398	0.4398		0.4073	0.4073						
Total						**0.4398**	**5.2844**		**0.4073**	**2.9355**						

3.3 Grading - 2020

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						0.0271	0.2560		0.0259	0.0891						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						1.0000e-004	7.8000e-003		9.0000e-005	2.1500e-003						
Total						**0.0272**	**0.2638**		**0.0260**	**0.0913**						

3.4 Trenching - 2020

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						0.1997	0.1997		0.1837	0.1837						
Total						**0.1997**	**0.1997**		**0.1837**	**0.1837**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

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						0.0902	0.0902		0.0833	0.0833						
Total						**0.0902**	**0.0902**		**0.0833**	**0.0833**						

3.4 Trenching - 2020

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						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.1677	0.1677		0.1543	0.1543						
Total						**0.1677**	**0.1677**		**0.1543**	**0.1543**						

3.4 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

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						0.0764	0.0764		0.0707	0.0707						
Total						**0.0764**	**0.0764**		**0.0707**	**0.0707**						

3.4 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**5.0000e-005**	**3.9000e-003**		**5.0000e-005**	**1.0700e-003**						

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating						0.0000	0.0000		0.0000	0.0000						
Off-Road						0.9467	0.9467		0.9462	0.9462						
Total						**0.9467**	**0.9467**		**0.9462**	**0.9462**						

3.5 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.4000e-004	0.0733		8.6000e-004	0.0202						
Total						**9.4000e-004**	**0.0733**		**8.6000e-004**	**0.0202**						

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						0.0000	0.0000		0.0000	0.0000						
Off-Road						0.0589	0.0589		0.0589	0.0589						
Total						**0.0589**	**0.0589**		**0.0589**	**0.0589**						

3.5 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						9.4000e-004	0.0733		8.6000e-004	0.0202						
Total						**9.4000e-004**	**0.0733**		**8.6000e-004**	**0.0202**						

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.5706	0.5706		0.5473	0.5473						
Total						**0.5706**	**0.5706**		**0.5473**	**0.5473**						

3.6 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.8200e-003	0.1018		5.5700e-003	0.0334						
Worker						4.6800e-003	0.3664		4.3100e-003	0.1008						
Total						**0.0105**	**0.4682**		**9.8800e-003**	**0.1342**						

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						0.2781	0.2781		0.2757	0.2757						
Total						**0.2781**	**0.2781**		**0.2757**	**0.2757**						

3.6 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						0.0000	0.0000		0.0000	0.0000						
Vendor						5.8200e-003	0.1018		5.5700e-003	0.0334						
Worker						4.6800e-003	0.3664		4.3100e-003	0.1008						
Total						**0.0105**	**0.4682**		**9.8800e-003**	**0.1342**						

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road						0.3965	0.3965		0.3648	0.3648						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**0.3965**	**0.3965**		**0.3648**	**0.3648**						

3.7 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						3.0000e-004	3.1800e-003		2.9000e-004	1.0800e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**3.5000e-004**	**7.0800e-003**		**3.4000e-004**	**2.1500e-003**						

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						0.2458	0.2458		0.2270	0.2270						
Paving						0.0000	0.0000		0.0000	0.0000						
Total						**0.2458**	**0.2458**		**0.2270**	**0.2270**						

3.7 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling						3.0000e-004	3.1800e-003		2.9000e-004	1.0800e-003						
Vendor						0.0000	0.0000		0.0000	0.0000						
Worker						5.0000e-005	3.9000e-003		5.0000e-005	1.0700e-003						
Total						**3.5000e-004**	**7.0800e-003**		**3.4000e-004**	**2.1500e-003**						

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						0.1563	14.0888		0.1466	3.8658						
Unmitigated						0.1563	14.0888		0.1466	3.8658						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,830.71	2,722.38	2496.30	6,391,749	6,391,749
City Park	1.89	22.75	16.74	14,926	14,926
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	2,832.60	2,745.13	2,513.04	6,406,675	6,406,675

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
City Park	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785
Enclosed Parking with Elevator	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

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						0.0831	0.0831		0.0831	0.0831						
NaturalGas Unmitigated						0.0831	0.0831		0.0831	0.0831						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11148.4						0.0831	0.0831		0.0831	0.0831						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0831**	**0.0831**		**0.0831**	**0.0831**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	11.1484						0.0831	0.0831		0.0831	0.0831						
City Park	0						0.0000	0.0000		0.0000	0.0000						
Enclosed Parking with Elevator	0						0.0000	0.0000		0.0000	0.0000						
Total							**0.0831**	**0.0831**		**0.0831**	**0.0831**						

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated						0.4505	0.4505		0.4505	0.4505						
Unmitigated						0.4505	0.4505		0.4505	0.4505						

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						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						0.2358	0.2358		0.2358	0.2358						
Landscaping						0.2146	0.2146		0.2146	0.2146						
Total						**0.4505**	**0.4505**		**0.4505**	**0.4505**						

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						0.0000	0.0000		0.0000	0.0000						
Consumer Products						0.0000	0.0000		0.0000	0.0000						
Hearth						0.2358	0.2358		0.2358	0.2358						
Landscaping						0.2146	0.2146		0.2146	0.2146						
Total						**0.4505**	**0.4505**		**0.4505**	**0.4505**						

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Start date and time 11/19/18 11:48:47

AERSCREEN 16216

555 E. Evelyn, Operational

555 E. Evelyn, Operational

----------------- DATA ENTRY VALIDATION -----------------

	METRIC	ENGLISH
** AREADATA **	---------------	----------------
Emission Rate:	0.182E-02 g/s	0.145E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	188.00 meters	616.80 feet
Area Source Width:	130.00 meters	426.51 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	81438	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters   0.0 feet

Probe distance: 5000. meters   16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K   -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

555EEvelyn_Operation.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR   started 11/19/18 11:50:48

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

****

Processing wind flow sector   1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

******** WARNING MESSAGES ********

*** NONE ***

****

Running AERMOD

Processing Spring

```
Processing surface roughness sector  1

*****************************************************
Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

*****************************************************
Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

*****************************************************
Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


************************************************

Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ******************************************


  Running AERMOD

 Processing Summer


Processing surface roughness sector  1
```

```
****************************************************
Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


****************************************************
Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


****************************************************
Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
*****************************************************
Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


*****************************************************
Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


*****************************************************
Processing wind flow sector   6


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
*****************************************************
Processing wind flow sector   7


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


*****************************************************
Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35


    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ********************************************


  Running AERMOD
 Processing Autumn


Processing surface roughness sector  1


*****************************************************
```

```
Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


*****************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


*****************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


*****************************************************
```

Processing wind flow sector   4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

******** WARNING MESSAGES ********

*** NONE ***

****

Processing wind flow sector   8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

******** WARNING MESSAGES ********

*** NONE ***

FLOWSECTOR   ended 11/19/18 11:51:14

REFINE   started 11/19/18 11:51:14

AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

******** WARNING MESSAGES ********

*** NONE ***

REFINE   ended 11/19/18 11:51:16

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 11/19/18 11:51:19

```
 Concentration     Distance Elevation  Diag  Season/Month  Zo sector      Date      H0     U*     W*  DT/DZ ZICNV
ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT  REF TA     HT
   0.19031E+01        1.00      0.00  25.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.21035E+01       25.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.22928E+01       50.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.24536E+01       75.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
*  0.25851E+01      100.00      0.00  20.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.21428E+01      125.00      0.00  30.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.15627E+01      150.00      0.00  30.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.12424E+01      175.00      0.00  30.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.10406E+01      200.00      0.00  25.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.90421E+00      225.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.80202E+00      250.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.71756E+00      275.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.64746E+00      300.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.58786E+00      325.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.53710E+00      350.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.49329E+00      375.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.45536E+00      400.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.42214E+00      425.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.39280E+00      450.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.36679E+00      475.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.34354E+00      500.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.32292E+00      525.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.30421E+00      550.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.28715E+00      575.00      0.00   5.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.27181E+00      600.00      0.00   5.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
   0.25785E+00      625.00      0.00   0.0       Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.      6.0
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1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.24512E+00     650.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.23336E+00     675.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.22248E+00     700.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.21247E+00     725.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20326E+00     750.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19474E+00     775.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18677E+00     800.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17932E+00     825.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17239E+00     850.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.16592E+00     875.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15987E+00     900.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.15416E+00     925.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14880E+00     950.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.14377E+00     975.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13904E+00    1000.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13452E+00    1025.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.13026E+00    1050.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12623E+00    1075.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.12244E+00    1100.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11881E+00    1125.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11536E+00    1150.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.11211E+00    1175.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10901E+00    1200.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10606E+00    1225.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10326E+00    1250.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.10055E+00    1275.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.97969E-01    1300.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
```

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.95503E-01 1325.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.93143E-01 1350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.90869E-01 1375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.88681E-01 1400.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.86584E-01 1425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.84573E-01 1450.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.82647E-01 1475.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.80797E-01 1500.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.79014E-01 1525.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.77300E-01 1550.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.75653E-01 1575.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.74067E-01 1600.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.72528E-01 1625.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.71052E-01 1650.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.69627E-01 1675.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.68251E-01 1700.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.66919E-01 1725.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.65633E-01 1750.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.64390E-01 1775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.63190E-01 1800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.62029E-01 1825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.60905E-01 1850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.59816E-01 1875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.58761E-01 1900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.57736E-01 1925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.56738E-01 1950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.55770E-01 1975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

```
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.54831E-01      2000.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.53918E-01      2025.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.53026E-01      2050.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.52160E-01      2075.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.51318E-01      2100.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.50499E-01      2125.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.49703E-01      2150.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.48929E-01      2175.00      0.00   5.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.48178E-01      2200.00      0.00   5.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.47446E-01      2225.00      0.00   5.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.46731E-01      2250.00      0.00   5.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.46036E-01      2275.00      0.00   5.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.45904E-01      2300.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.45229E-01      2325.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.44571E-01      2350.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.43930E-01      2375.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.43305E-01      2400.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.42695E-01      2425.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.42099E-01      2450.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.41518E-01      2475.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.40950E-01      2500.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.40396E-01      2525.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.39855E-01      2550.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.39326E-01      2575.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.38810E-01      2600.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.38304E-01      2625.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
1.000  1.50  0.35   0.50  10.0  310.0    2.0
  0.37811E-01      2650.00      0.00   0.0       Winter       0-360    10011001    -1.30  0.043 -9.000  0.020 -999.    21.       6.0
```

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.37328E-01 2675.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36855E-01 2700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.36393E-01 2725.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35941E-01 2750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35498E-01 2775.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.35065E-01 2800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34641E-01 2825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.34226E-01 2850.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33819E-01 2875.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33421E-01 2900.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.33030E-01 2925.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32648E-01 2950.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.32273E-01 2975.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31905E-01 3000.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31545E-01 3025.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.31192E-01 3050.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30845E-01 3075.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30505E-01 3100.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.30172E-01 3125.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29845E-01 3150.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29523E-01 3174.99 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.29208E-01 3200.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28899E-01 3225.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28595E-01 3250.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28297E-01 3275.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.28004E-01 3300.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27716E-01 3325.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27433E-01 3350.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.27156E-01 3375.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26883E-01 3400.00 0.00 20.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26615E-01 3425.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26351E-01 3450.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.26092E-01 3475.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25837E-01 3500.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25587E-01 3525.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25341E-01 3550.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.25099E-01 3575.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24860E-01 3600.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24626E-01 3625.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24395E-01 3650.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.24169E-01 3674.99 0.00 35.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23946E-01 3700.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23726E-01 3725.00 0.00 15.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23510E-01 3750.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23297E-01 3775.00 0.00 25.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.23088E-01 3800.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22881E-01 3825.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22678E-01 3850.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22479E-01 3875.00 0.00 5.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22281E-01 3900.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.22088E-01 3925.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21897E-01 3950.00 0.00 10.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21708E-01 3975.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0
1.000 1.50 0.35 0.50 10.0 310.0 2.0
0.21523E-01 4000.00 0.00 0.0 Winter 0-360 10011001 -1.30 0.043 -9.000 0.020 -999. 21. 6.0

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1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.21340E-01     4025.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.21160E-01     4050.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20983E-01     4075.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20808E-01     4100.00     0.00  10.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20636E-01     4125.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20466E-01     4150.00     0.00  10.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20298E-01     4175.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.20133E-01     4200.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19971E-01     4225.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19810E-01     4250.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19652E-01     4275.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19496E-01     4300.00     0.00  10.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19342E-01     4325.00     0.00   5.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19190E-01     4350.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.19040E-01     4375.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18892E-01     4400.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18746E-01     4425.00     0.00   5.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18602E-01     4449.99     0.00  10.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18460E-01     4475.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18320E-01     4500.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18182E-01     4525.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.18045E-01     4550.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17910E-01     4575.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17778E-01     4600.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17646E-01     4625.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17517E-01     4650.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000  1.50  0.35   0.50  10.0  310.0   2.0
  0.17389E-01     4675.00     0.00   0.0     Winter     0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
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1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.17262E-01     4700.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.17137E-01     4725.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.17014E-01     4750.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16892E-01     4775.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16772E-01     4800.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16654E-01     4825.00     0.00  15.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16536E-01     4850.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16420E-01     4875.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16306E-01     4900.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16193E-01     4925.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.16081E-01     4950.00     0.00   5.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.15971E-01     4975.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
  0.15861E-01     5000.00     0.00   0.0      Winter      0-360   10011001   -1.30  0.043 -9.000  0.020 -999.   21.     6.0
1.000   1.50   0.35    0.50   10.0   310.0    2.0
```

Tyler Rogers

From: Roche, Jeff <Jeff.Roche@mountainview.gov>
Sent: Monday, November 19, 2018 7:32 AM
To: Amie Ashton
Cc: Byrer, Quynh
Subject: Comments on the DEIR - 555 East Evelyn Project information
Attachments: Mondrian-Driveway-Count-Nov2018.xlsx

Good Morning,

I hope that you both had a good weekend. I am forwarding these comments on the DEIR from a neighbor next door.

As we receive others, I will send them over to you.

Jeff Roche
Senior Planner
Community Development Department, Planning Division
500 Castro Street – P O Box 7540
Mountain View, CA 94039-7540
(650) 903-6129 Direct
(650) 903-6306 Main
Jeff.Roche@mountainview.gov
CITY OF MOUNTAIN VIEW

From: Ann Fitzsimons [mailto:ann_comey@yahoo.com]
Sent: Sunday, November 18, 2018 9:17 PM
To: Roche, Jeff
Subject: 555 East Evelyn Project information

Dear Mr. Roche,

As a resident of the Mondrian Subdivision next door to the Flower Market site, this letter requests a reduction in the project's proposed density to make it conform to other nearby developments. The area does not have compatible development to support five story apartments. There are no nearby retail or employment sites within walking distance, no transit service that is likely to take enough residents in a reasonable time to a destination they might want to reach for the low trip generation rate to be valid, and no robust street network that can support the new traffic without making a notable change in the environment.

Even though the traffic study makes a good and rule-following estimate of traffic conditions with the proposed project, the trip generation rate is just over one peak hour trip for every three apartments. In a development that has been described as a "luxury" (also known as high rent) apartment complex by the developers, in a city that is well known for the last several years for its high rents, so high that people can't afford to live here without at least two wage earners in every housing unit, the suggested low trip generation rate is just not credible.

The residents of Mondrian conducted a traffic count at our two site driveways on Wednesday, November 13, 2018. The count data and findings are attached. We calculated a peak hour trip rate of 0.67 trips per unit, a little bit less than double the suggested rate for the 555 East Evelyn project.

Also, Mondrian was built with 2-1/3 parking spaces per unit, and for the approximate 6 years since the development was been fully occupied, the parking capacity has been a struggle. To read that the 555 E Evelyn development will only provide 1.45 spaces per unit is frightening.

We request that a revised traffic study be conducted with locally-validated trip generation rates. Please see the attached spreadsheet with Mondrian driveway counts.

Yours truly,
Ann Comey
463 Magritte Way
Mountain View, CA 94041

Amended Appendix C: Revised CalEEMod Air Quality Calculations

555 E. Evelyn Ave, Mountain View

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Mid Rise	471.00	Dwelling Unit	5.00	557,084.00	1347

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 Rate = 290

Land Use - Applicant Provided Land Uses

Construction Phase - Applicant Provided schedule

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment2

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Trips and VMT - Added 46 round trips / 92 one-way trips for demo pavement = 156+92=248, added 37 round trips / 74 one-way trips for asphalt paving

Demolition - Applicant Provided Demo Volume 34,377sf

Grading - Applicant Provided Export volume 135,160

Vehicle Trips - Mid Rise = 6.01, 5.78, 5.30

Woodstoves - No Woodmass, No Wood, Gas = 150.72

Water And Wastewater - 100% Aerobic

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	196.00
tblConstructionPhase	NumDays	230.00	198.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	PhaseEndDate	3/9/2021	10/1/2021
tblConstructionPhase	PhaseEndDate	1/12/2021	12/1/2021
tblConstructionPhase	PhaseEndDate	1/28/2020	3/1/2020
tblConstructionPhase	PhaseEndDate	2/25/2020	6/1/2020
tblConstructionPhase	PhaseEndDate	2/9/2021	12/31/2021
tblConstructionPhase	PhaseStartDate	2/10/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	2/26/2020	3/1/2021
tblConstructionPhase	PhaseStartDate	1/29/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	1/13/2021	12/1/2021
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	70.65	150.72
tblFireplaces	NumberWood	80.07	0.00
tblGrading	MaterialExported	0.00	135,160.00
tblLandUse	LandUseSquareFeet	471,000.00	557,084.00
tblLandUse	LotAcreage	6.01	0.00

tblLandUse	LotAcreage	12.39	5.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290

tblTripsAndVMT	HaulingTripNumber	156.00	248.00
tblTripsAndVMT	HaulingTripNumber	0.00	74.00
tblVehicleTrips	ST_TR	6.39	5.78
tblVehicleTrips	SU_TR	5.86	5.30
tblVehicleTrips	WD_TR	6.65	6.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1311	3.1158	0.9458	7.5700e-003	0.3120	0.0377	0.3497	0.1147	0.0349	0.1496	0.0000	725.9658	725.9658	0.0520	0.0000	727.2662
2021	4.3082	2.1419	2.6112	8.4100e-003	0.5090	0.0669	0.5759	0.1369	0.0643	0.2012	0.0000	768.9295	768.9295	0.0431	0.0000	770.0076
Maximum	**4.3082**	**3.1158**	**2.6112**	**8.4100e-003**	**0.5090**	**0.0669**	**0.5759**	**0.1369**	**0.0643**	**0.2012**	**0.0000**	**768.9295**	**768.9295**	**0.0520**	**0.0000**	**770.0076**

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					
2020	0.1311	3.1158	0.9458	7.5700e-003	0.3120	0.0377	0.3497	0.1147	0.0349	0.1496	0.0000	725.9657	725.9657	0.0520	0.0000	727.2662
2021	4.3082	2.1419	2.6112	8.4100e-003	0.5090	0.0669	0.5759	0.1369	0.0643	0.2012	0.0000	768.9293	768.9293	0.0431	0.0000	770.0074
Maximum	**4.3082**	**3.1158**	**2.6112**	**8.4100e-003**	**0.5090**	**0.0669**	**0.5759**	**0.1369**	**0.0643**	**0.2012**	**0.0000**	**768.9293**	**768.9293**	**0.0520**	**0.0000**	**770.0074**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2020**	**3-31-2020**	1.1554	1.1554
2	**4-1-2020**	**6-30-2020**	1.9811	1.9811
4	**10-1-2020**	**12-31-2020**	0.1011	0.1011
5	**1-1-2021**	**3-31-2021**	1.7201	1.7201
6	**4-1-2021**	**6-30-2021**	2.1210	2.1210
7	**7-1-2021**	**9-30-2021**	2.1443	2.1443
		Highest	2.1443	2.1443

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Area	2.6993	0.0567	3.5141	2.9000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	24.5404	24.5404	5.9000e-003	3.4000e-004	24.7908
Energy	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	678.8909	678.8909	0.0503	0.0135	684.1825
Mobile	0.6434	2.7264	7.4753	0.0258	2.3824	0.0219	2.4043	0.6377	0.0205	0.6582	0.0000	2,365.6268	2,365.6268	0.0799	0.0000	2,367.6253
Waste						0.0000	0.0000		0.0000	0.0000	43.9983	0.0000	43.9983	2.6002	0.0000	109.0039
Water						0.0000	0.0000		0.0000	0.0000	10.8573	31.2982	42.1555	0.0405	0.0243	50.3970
Total	**3.3647**	**2.9705**	**11.0692**	**0.0273**	**2.3824**	**0.0578**	**2.4402**	**0.6377**	**0.0563**	**0.6941**	**54.8556**	**3,100.3562**	**3,155.2118**	**2.7769**	**0.0381**	**3,235.9996**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6993	0.0567	3.5141	2.9000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	24.5404	24.5404	5.9000e-003	3.4000e-004	24.7908
Energy	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	678.8909	678.8909	0.0503	0.0135	684.1825
Mobile	0.6434	2.7264	7.4753	0.0258	2.3824	0.0219	2.4043	0.6377	0.0205	0.6582	0.0000	2,365.6268	2,365.6268	0.0799	0.0000	2,367.6253
Waste						0.0000	0.0000		0.0000	0.0000	43.9983	0.0000	43.9983	2.6002	0.0000	109.0039
Water						0.0000	0.0000		0.0000	0.0000	10.8573	31.2982	42.1555	0.0405	0.0243	50.3970
Total	**3.3647**	**2.9705**	**11.0692**	**0.0273**	**2.3824**	**0.0578**	**2.4402**	**0.6377**	**0.0563**	**0.6941**	**54.8556**	**3,100.3562**	**3,155.2118**	**2.7769**	**0.0381**	**3,235.9996**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/1/2020	5	43	
2	Grading	Grading	3/1/2020	6/1/2020	5	66	
3	Trenching	Trenching	11/1/2020	1/1/2021	5	45	
4	Architectural Coating	Architectural Coating	1/1/2021	10/1/2021	5	196	
5	Building Construction	Building Construction	3/1/2021	12/1/2021	5	198	
6	Paving	Paving	12/1/2021	12/31/2021	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 1,128,095; Residential Outdoor: 376,032; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	2	6.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	3.00	97	0.37
Grading	Excavators	1	5.00	158	0.38
Grading	Graders	2	3.00	187	0.41
Grading	Rubber Tired Dozers	1	5.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37

Building Construction	Welders	2	1.00	46	0.45
Paving	Pavers	1	1.00	130	0.42
Paving	Paving Equipment	1	1.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	10	2.00	78	0.48
Architectural Coating	Aerial Lifts	1	1.00	63	0.31

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	3	8.00	0.00	248.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	16,895.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	470.00	101.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	74.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	94.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

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					0.0169	0.0000	0.0169	2.5600e-003	0.0000	2.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0947	0.1237	1.9000e-004		4.8400e-003	4.8400e-003		4.4500e-003	4.4500e-003	0.0000	16.8228	16.8228	5.4400e-003	0.0000	16.9588

Total	**9.5800e-003**	**0.0947**	**0.1237**	**1.9000e-004**	**0.0169**	**4.8400e-003**	**0.0218**	**2.5600e-003**	**4.4500e-003**	**7.0100e-003**	**0.0000**	**16.8228**	**16.8228**	**5.4400e-003**	**0.0000**	**16.9588**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0300e-003	0.0360	7.3700e-003	1.0000e-004	2.1000e-003	1.2000e-004	2.2200e-003	5.8000e-004	1.1000e-004	6.9000e-004	0.0000	9.4576	9.4576	4.3000e-004	0.0000	9.4684
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.3000e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1699	1.1699	3.0000e-005	0.0000	1.1706
Total	**1.6000e-003**	**0.0364**	**0.0117**	**1.1000e-004**	**3.4600e-003**	**1.3000e-004**	**3.5900e-003**	**9.4000e-004**	**1.2000e-004**	**1.0600e-003**	**0.0000**	**10.6274**	**10.6274**	**4.6000e-004**	**0.0000**	**10.6390**

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					0.0169	0.0000	0.0169	2.5600e-003	0.0000	2.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0947	0.1237	1.9000e-004		4.8400e-003	4.8400e-003		4.4500e-003	4.4500e-003	0.0000	16.8228	16.8228	5.4400e-003	0.0000	16.9588
Total	**9.5800e-003**	**0.0947**	**0.1237**	**1.9000e-004**	**0.0169**	**4.8400e-003**	**0.0218**	**2.5600e-003**	**4.4500e-003**	**7.0100e-003**	**0.0000**	**16.8228**	**16.8228**	**5.4400e-003**	**0.0000**	**16.9588**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0300e-003	0.0360	7.3700e-003	1.0000e-004	2.1000e-003	1.2000e-004	2.2200e-003	5.8000e-004	1.1000e-004	6.9000e-004	0.0000	9.4576	9.4576	4.3000e-004	0.0000	9.4684
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7000e-004	4.1000e-004	4.3000e-003	1.0000e-005	1.3600e-003	1.0000e-005	1.3700e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.1699	1.1699	3.0000e-005	0.0000	1.1706
Total	**1.6000e-003**	**0.0364**	**0.0117**	**1.1000e-004**	**3.4600e-003**	**1.3000e-004**	**3.5900e-003**	**9.4000e-004**	**1.2000e-004**	**1.0600e-003**	**0.0000**	**10.6274**	**10.6274**	**4.6000e-004**	**0.0000**	**10.6390**

3.3 Grading - 2020

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					0.1450	0.0000	0.1450	0.0709	0.0000	0.0709	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.4401	0.1975	4.5000e-004		0.0189	0.0189		0.0174	0.0174	0.0000	39.2686	39.2686	0.0127	0.0000	39.5861
Total	**0.0391**	**0.4401**	**0.1975**	**4.5000e-004**	**0.1450**	**0.0189**	**0.1638**	**0.0709**	**0.0174**	**0.0882**	**0.0000**	**39.2686**	**39.2686**	**0.0127**	**0.0000**	**39.5861**

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	0.0702	2.4513	0.5020	6.6600e-003	0.1432	7.9600e-003	0.1512	0.0394	7.6200e-003	0.0470	0.0000	644.2976	644.2976	0.0295	0.0000	645.0344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	7.9000e-004	8.2600e-003	2.0000e-005	2.6200e-003	2.0000e-005	2.6300e-003	7.0000e-004	2.0000e-005	7.1000e-004	0.0000	2.2445	2.2445	6.0000e-005	0.0000	2.2459
Total	**0.0713**	**2.4521**	**0.5103**	**6.6800e-003**	**0.1458**	**7.9800e-003**	**0.1538**	**0.0401**	**7.6400e-003**	**0.0477**	**0.0000**	**646.5421**	**646.5421**	**0.0295**	**0.0000**	**647.2803**

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					0.1450	0.0000	0.1450	0.0709	0.0000	0.0709	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.4400	0.1975	4.5000e-004		0.0189	0.0189		0.0174	0.0174	0.0000	39.2685	39.2685	0.0127	0.0000	39.5860
Total	**0.0391**	**0.4400**	**0.1975**	**4.5000e-004**	**0.1450**	**0.0189**	**0.1638**	**0.0709**	**0.0174**	**0.0882**	**0.0000**	**39.2685**	**39.2685**	**0.0127**	**0.0000**	**39.5860**

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	0.0702	2.4513	0.5020	6.6600e-003	0.1432	7.9600e-003	0.1512	0.0394	7.6200e-003	0.0470	0.0000	644.2976	644.2976	0.0295	0.0000	645.0344
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-003	7.9000e-004	8.2600e-003	2.0000e-005	2.6200e-003	2.0000e-005	2.6300e-003	7.0000e-004	2.0000e-005	7.1000e-004	0.0000	2.2445	2.2445	6.0000e-005	0.0000	2.2459

Total	0.0713	2.4521	0.5103	6.6800e-003	0.1458	7.9800e-003	0.1538	0.0401	7.6400e-003	0.0477	0.0000	646.5421	646.5421	0.0295	0.0000	647.2803

3.4 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1800e-003	0.0923	0.0999	1.4000e-004		5.8300e-003	5.8300e-003		5.3700e-003	5.3700e-003	0.0000	11.9568	11.9568	3.8700e-003	0.0000	12.0535
Total	**9.1800e-003**	**0.0923**	**0.0999**	**1.4000e-004**		**5.8300e-003**	**5.8300e-003**		**5.3700e-003**	**5.3700e-003**	**0.0000**	**11.9568**	**11.9568**	**3.8700e-003**	**0.0000**	**12.0535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.6000e-004	2.7500e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7482	0.7482	2.0000e-005	0.0000	0.7486
Total	**3.7000e-004**	**2.6000e-004**	**2.7500e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7482**	**0.7482**	**2.0000e-005**	**0.0000**	**0.7486**

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	9.1800e-003	0.0923	0.0999	1.4000e-004		5.8300e-003	5.8300e-003		5.3700e-003	5.3700e-003	0.0000	11.9568	11.9568	3.8700e-003	0.0000	12.0535
Total	**9.1800e-003**	**0.0923**	**0.0999**	**1.4000e-004**		**5.8300e-003**	**5.8300e-003**		**5.3700e-003**	**5.3700e-003**	**0.0000**	**11.9568**	**11.9568**	**3.8700e-003**	**0.0000**	**12.0535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.6000e-004	2.7500e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7482	0.7482	2.0000e-005	0.0000	0.7486
Total	**3.7000e-004**	**2.6000e-004**	**2.7500e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7482**	**0.7482**	**2.0000e-005**	**0.0000**	**0.7486**

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	1.9000e-004	1.8900e-003	2.2500e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.2719	0.2719	9.0000e-005	0.0000	0.2741
Total	**1.9000e-004**	**1.8900e-003**	**2.2500e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2719**	**0.2719**	**9.0000e-005**	**0.0000**	**0.2741**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

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	1.9000e-004	1.8900e-003	2.2500e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.2719	0.2719	9.0000e-005	0.0000	0.2741
Total	**1.9000e-004**	**1.8900e-003**	**2.2500e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2719**	**0.2719**	**9.0000e-005**	**0.0000**	**0.2741**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0164**	**0.0164**	**0.0000**	**0.0000**	**0.0164**

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.5061	0.6071	9.9000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	85.2030	85.2030	6.3000e-003	0.0000	85.3606
Total	**4.0492**	**0.5061**	**0.6071**	**9.9000e-004**		**0.0309**	**0.0309**		**0.0309**	**0.0309**	**0.0000**	**85.2030**	**85.2030**	**6.3000e-003**	**0.0000**	**85.3606**

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	0.0284	0.0197	0.2107	6.7000e-004	0.0731	4.6000e-004	0.0735	0.0194	4.2000e-004	0.0199	0.0000	60.4806	60.4806	1.3800e-003	0.0000	60.5150
Total	**0.0284**	**0.0197**	**0.2107**	**6.7000e-004**	**0.0731**	**4.6000e-004**	**0.0735**	**0.0194**	**4.2000e-004**	**0.0199**	**0.0000**	**60.4806**	**60.4806**	**1.3800e-003**	**0.0000**	**60.5150**

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	3.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.5061	0.6071	9.9000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	85.2029	85.2029	6.3000e-003	0.0000	85.3605
Total	**4.0492**	**0.5061**	**0.6071**	**9.9000e-004**		**0.0309**	**0.0309**		**0.0309**	**0.0309**	**0.0000**	**85.2029**	**85.2029**	**6.3000e-003**	**0.0000**	**85.3605**

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0284	0.0197	0.2107	6.7000e-004	0.0731	4.6000e-004	0.0735	0.0194	4.2000e-004	0.0199	0.0000	60.4806	60.4806	1.3800e-003	0.0000	60.5150
Total	**0.0284**	**0.0197**	**0.2107**	**6.7000e-004**	**0.0731**	**4.6000e-004**	**0.0735**	**0.0194**	**4.2000e-004**	**0.0199**	**0.0000**	**60.4806**	**60.4806**	**1.3800e-003**	**0.0000**	**60.5150**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0533	0.4710	0.4419	6.3000e-004		0.0305	0.0305		0.0282	0.0282	0.0000	54.1936	54.1936	0.0166	0.0000	54.6093
Total	**0.0533**	**0.4710**	**0.4419**	**6.3000e-004**		**0.0305**	**0.0305**		**0.0282**	**0.0282**	**0.0000**	**54.1936**	**54.1936**	**0.0166**	**0.0000**	**54.6093**

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	0.0326	1.0275	0.2735	2.7000e-003	0.0658	2.2800e-003	0.0681	0.0190	2.1800e-003	0.0212	0.0000	259.0035	259.0035	0.0113	0.0000	259.2857
Worker	0.1433	0.0993	1.0644	3.3800e-003	0.3690	2.3200e-003	0.3714	0.0982	2.1400e-003	0.1003	0.0000	305.4889	305.4889	6.9500e-003	0.0000	305.6626
Total	**0.1760**	**1.1267**	**1.3379**	**6.0800e-003**	**0.4348**	**4.6000e-003**	**0.4394**	**0.1172**	**4.3200e-003**	**0.1215**	**0.0000**	**564.4924**	**564.4924**	**0.0182**	**0.0000**	**564.9483**

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	0.0533	0.4710	0.4419	6.3000e-004		0.0305	0.0305		0.0282	0.0282	0.0000	54.1936	54.1936	0.0166	0.0000	54.6093
Total	**0.0533**	**0.4710**	**0.4419**	**6.3000e-004**		**0.0305**	**0.0305**		**0.0282**	**0.0282**	**0.0000**	**54.1936**	**54.1936**	**0.0166**	**0.0000**	**54.6093**

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	0.0326	1.0275	0.2735	2.7000e-003	0.0658	2.2800e-003	0.0681	0.0190	2.1800e-003	0.0212	0.0000	259.0035	259.0035	0.0113	0.0000	259.2857
Worker	0.1433	0.0993	1.0644	3.3800e-003	0.3690	2.3200e-003	0.3714	0.0982	2.1400e-003	0.1003	0.0000	305.4889	305.4889	6.9500e-003	0.0000	305.6626
Total	**0.1760**	**1.1267**	**1.3379**	**6.0800e-003**	**0.4348**	**4.6000e-003**	**0.4394**	**0.1172**	**4.3200e-003**	**0.1215**	**0.0000**	**564.4924**	**564.4924**	**0.0182**	**0.0000**	**564.9483**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-004	6.5200e-003	7.8300e-003	1.0000e-005		3.2000e-004	3.2000e-004		2.9000e-004	2.9000e-004	0.0000	1.1078	1.1078	3.6000e-004	0.0000	1.1168
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**6.5200e-003**	**7.8300e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**1.1078**	**1.1078**	**3.6000e-004**	**0.0000**	**1.1168**

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	2.9000e-004	9.8900e-003	2.1600e-003	3.0000e-005	6.3000e-004	3.0000e-005	6.6000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7862	2.7862	1.3000e-004	0.0000	2.7894
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.3200e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3775	0.3775	1.0000e-005	0.0000	0.3777
Total	**4.7000e-004**	**0.0100**	**3.4800e-003**	**3.0000e-005**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**2.9000e-004**	**3.0000e-005**	**3.2000e-004**	**0.0000**	**3.1637**	**3.1637**	**1.4000e-004**	**0.0000**	**3.1671**

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	6.3000e-004	6.5200e-003	7.8300e-003	1.0000e-005		3.2000e-004	3.2000e-004		2.9000e-004	2.9000e-004	0.0000	1.1078	1.1078	3.6000e-004	0.0000	1.1168

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**6.5200e-003**	**7.8300e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**1.1078**	**1.1078**	**3.6000e-004**	**0.0000**	**1.1168**

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	2.9000e-004	9.8900e-003	2.1600e-003	3.0000e-005	6.3000e-004	3.0000e-005	6.6000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7862	2.7862	1.3000e-004	0.0000	2.7894
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.3200e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3775	0.3775	1.0000e-005	0.0000	0.3777
Total	**4.7000e-004**	**0.0100**	**3.4800e-003**	**3.0000e-005**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**2.9000e-004**	**3.0000e-005**	**3.2000e-004**	**0.0000**	**3.1637**	**3.1637**	**1.4000e-004**	**0.0000**	**3.1671**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6434	2.7264	7.4753	0.0258	2.3824	0.0219	2.4043	0.6377	0.0205	0.6582	0.0000	2,365.6268	2,365.6268	0.0799	0.0000	2,367.6253

Unmitigated	0.6434	2.7264	7.4753	0.0258	2.3824	0.0219	2.4043	0.6377	0.0205	0.6582	0.0000	2,365.626 8	2,365.6268	0.0799	0.0000	2,367.625 3

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,830.71	2,722.38	2496.30	6,391,749	6,391,749
City Park	1.89	22.75	16.74	14,926	14,926
Enclosed Parking with Elevator	0.00	0.00	0.00		
Total	2,832.60	2,745.13	2,513.04	6,406,675	6,406,675

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
City Park	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking with Elevator	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

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	461.7439	461.7439	0.0462	9.5500e-003	465.7451
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	461.7439	461.7439	0.0462	9.5500e-003	465.7451
NaturalGas Mitigated	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.1470	217.1470	4.1600e-003	3.9800e-003	218.4374
NaturalGas Unmitigated	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.1470	217.1470	4.1600e-003	3.9800e-003	218.4374

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.06918e+006	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.1470	217.1470	4.1600e-003	3.9800e-003	218.4374
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0219**	**0.1875**	**0.0798**	**1.2000e-003**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**0.0000**	**217.1470**	**217.1470**	**4.1600e-003**	**3.9800e-003**	**218.4374**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	4.06918e+006	0.0219	0.1875	0.0798	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	217.1470	217.1470	4.1600e-003	3.9800e-003	218.4374
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0219**	**0.1875**	**0.0798**	**1.2000e-003**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**0.0000**	**217.1470**	**217.1470**	**4.1600e-003**	**3.9800e-003**	**218.4374**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.94445e+006	255.7768	0.0256	5.2900e-003	257.9932
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	1.56579e+006	205.9671	0.0206	4.2600e-003	207.7519
Total		**461.7439**	**0.0462**	**9.5500e-003**	**465.7451**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.94445e+006	255.7768	0.0256	5.2900e-003	257.9932
City Park	0	0.0000	0.0000	0.0000	0.0000

Enclosed Parking with Elevator	1.56579e+006	205.9671	0.0206	4.2600e-003	207.7519
Total		**461.7439**	**0.0462**	**9.5500e-003**	**465.7451**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6993	0.0567	3.5141	2.9000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	24.5404	24.5404	5.9000e-003	3.4000e-004	24.7908
Unmitigated	2.6993	0.0567	3.5141	2.9000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	24.5404	24.5404	5.9000e-003	3.4000e-004	24.7908

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	0.3977					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1934					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9000e-003	0.0163	6.9100e-003	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.8158	18.8158	3.6000e-004	3.4000e-004	18.9276

Landscaping	0.1063	0.0404	3.5072	1.9000e-004		0.0194	0.0194		0.0194	0.0194	0.0000	5.7246	5.7246	5.5400e-003	0.0000	5.8632
Total	**2.6993**	**0.0567**	**3.5141**	**2.9000e-004**		**0.0207**	**0.0207**		**0.0207**	**0.0207**	**0.0000**	**24.5404**	**24.5404**	**5.9000e-003**	**3.4000e-004**	**24.7908**

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	0.3977					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1934					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9000e-003	0.0163	6.9100e-003	1.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	18.8158	18.8158	3.6000e-004	3.4000e-004	18.9276
Landscaping	0.1063	0.0404	3.5072	1.9000e-004		0.0194	0.0194		0.0194	0.0194	0.0000	5.7246	5.7246	5.5400e-003	0.0000	5.8632
Total	**2.6993**	**0.0567**	**3.5141**	**2.9000e-004**		**0.0207**	**0.0207**		**0.0207**	**0.0207**	**0.0000**	**24.5404**	**24.5404**	**5.9000e-003**	**3.4000e-004**	**24.7908**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.1555	0.0405	0.0243	50.3970
Unmitigated	42.1555	0.0405	0.0243	50.3970

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	30.6875 / 19.3465	41.6069	0.0404	0.0243	49.8437
City Park	0 / 1.19148	0.5486	5.0000e-005	1.0000e-005	0.5533
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**42.1555**	**0.0405**	**0.0243**	**50.3970**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	30.6875 / 19.3465	41.6069	0.0404	0.0243	49.8437
City Park	0 / 1.19148	0.5486	5.0000e-005	1.0000e-005	0.5533
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**42.1555**	**0.0405**	**0.0243**	**50.3970**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	43.9983	2.6002	0.0000	109.0039
Unmitigated	43.9983	2.6002	0.0000	109.0039

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	216.66	43.9800	2.5991	0.0000	108.9586
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**43.9983**	**2.6002**	**0.0000**	**109.0039**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	216.66	43.9800	2.5991	0.0000	108.9586
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**43.9983**	**2.6002**	**0.0000**	**109.0039**

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

555 E. Evelyn Ave, Mountain View - Construction HRA

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	668.00	Space	0.00	267,200.00	0
City Park	1.00	Acre	1.00	43,560.00	0
Apartments Mid Rise	471.00	Dwelling Unit	5.00	557,084.00	1347

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E 2020 Rate = 290

Land Use - Applicant Provided Land Uses

Construction Phase - Applicant Provided schedule

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment2

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Off-road Equipment - Applicant Provided Equipment

Trips and VMT - Added 46 round trips / 92 one-way trips for demo pavement = 156+92=248, added 37 round trips / 74 one-way trips for asphalt paving

Demolition - Applicant Provided Demo Volume 34,377sf

Grading - Applicant Provided Export volume 135,160

Vehicle Trips - Mid Rise = 6.01, 5.78, 5.30

Woodstoves - No Woodmass, No Wood, Gas = 150.72

Water And Wastewater - 100% Aerobic

Construction Off-road Equipment Mitigation - BMPs, Tier 4 Interim mitigation

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim

tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	20.00	196.00
tblConstructionPhase	NumDays	230.00	198.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	PhaseEndDate	1/28/2020	3/1/2020
tblConstructionPhase	PhaseEndDate	2/25/2020	6/1/2020
tblConstructionPhase	PhaseEndDate	3/9/2021	10/1/2021
tblConstructionPhase	PhaseEndDate	1/12/2021	12/1/2021
tblConstructionPhase	PhaseEndDate	2/9/2021	12/31/2021
tblConstructionPhase	PhaseStartDate	1/29/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	2/10/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	2/26/2020	3/1/2021
tblConstructionPhase	PhaseStartDate	1/13/2021	12/1/2021
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	70.65	150.72
tblFireplaces	NumberWood	80.07	0.00
tblGrading	MaterialExported	0.00	135,160.00
tblLandUse	LandUseSquareFeet	471,000.00	557,084.00
tblLandUse	LotAcreage	6.01	0.00
tblLandUse	LotAcreage	12.39	5.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37

tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	10.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	2.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	3.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00

tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripNumber	156.00	248.00
tblTripsAndVMT	HaulingTripNumber	0.00	74.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblVehicleTrips	ST_TR	6.39	5.78
tblVehicleTrips	SU_TR	5.86	5.30
tblVehicleTrips	WD_TR	6.65	6.01
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0772	1.5113	0.5694	1.9300e-003	0.1698	0.0304	0.2002	0.0756	0.0280	0.1036	0.0000	179.8724	179.8724	0.0339	0.0000	180.7192
2021	4.1768	1.6498	1.5606	2.9500e-003	0.0508	0.0629	0.1137	0.0138	0.0605	0.0743	0.0000	264.5939	264.5939	0.0325	0.0000	265.4071
Maximum	**4.1768**	**1.6498**	**1.5606**	**2.9500e-003**	**0.1698**	**0.0629**	**0.2002**	**0.0756**	**0.0605**	**0.1036**	**0.0000**	**264.5939**	**264.5939**	**0.0339**	**0.0000**	**265.4071**

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					
2020	0.0318	1.1645	0.6574	1.9300e-003	0.0807	2.1000e-003	0.0829	0.0187	2.0700e-003	0.0208	0.0000	179.8723	179.8723	0.0339	0.0000	180.7191
2021	4.0826	1.3052	1.5766	2.9500e-003	0.0508	4.9700e-003	0.0557	0.0138	4.9000e-003	0.0187	0.0000	264.5937	264.5937	0.0325	0.0000	265.4069
Maximum	**4.0826**	**1.3052**	**1.5766**	**2.9500e-003**	**0.0807**	**4.9700e-003**	**0.0829**	**0.0187**	**4.9000e-003**	**0.0208**	**0.0000**	**264.5937**	**264.5937**	**0.0339**	**0.0000**	**265.4069**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**3.28**	**21.87**	**-4.88**	**0.00**	**40.38**	**92.42**	**55.85**	**63.64**	**92.12**	**77.81**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	0.5732	0.4429
2	4-1-2020	6-30-2020	0.9245	0.6992
4	10-1-2020	12-31-2020	0.1006	0.0620
5	1-1-2021	3-31-2021	1.6386	1.5456
6	4-1-2021	6-30-2021	1.9282	1.7841
7	7-1-2021	9-30-2021	1.9494	1.8037
		Highest	1.9494	1.8037

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/1/2020	5	43	
2	Grading	Grading	3/1/2020	6/1/2020	5	66	
3	Trenching	Trenching	11/1/2020	1/1/2021	5	45	
4	Architectural Coating	Architectural Coating	1/1/2021	10/1/2021	5	196	
5	Building Construction	Building Construction	3/1/2021	12/1/2021	5	198	
6	Paving	Paving	12/1/2021	12/31/2021	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 1,128,095; Residential Outdoor: 376,032; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	2	6.00	158	0.38

Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	3.00	97	0.37
Grading	Excavators	1	5.00	158	0.38
Grading	Graders	2	3.00	187	0.41
Grading	Rubber Tired Dozers	1	5.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Building Construction	Welders	2	1.00	46	0.45
Paving	Pavers	1	1.00	130	0.42
Paving	Paving Equipment	1	1.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Air Compressors	10	2.00	78	0.48
Architectural Coating	Aerial Lifts	1	1.00	63	0.31

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	3	8.00	0.00	248.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	16,895.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	470.00	101.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	74.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	11	94.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	5.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

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					0.0169	0.0000	0.0169	2.5600e-003	0.0000	2.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0947	0.1237	1.9000e-004		4.8400e-003	4.8400e-003		4.4500e-003	4.4500e-003	0.0000	16.8228	16.8228	5.4400e-003	0.0000	16.9588
Total	**9.5800e-003**	**0.0947**	**0.1237**	**1.9000e-004**	**0.0169**	**4.8400e-003**	**0.0218**	**2.5600e-003**	**4.4500e-003**	**7.0100e-003**	**0.0000**	**16.8228**	**16.8228**	**5.4400e-003**	**0.0000**	**16.9588**

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	2.7000e-004	0.0128	2.0900e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.6105	1.6105	1.7000e-004	0.0000	1.6148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	9.0000e-005	1.1300e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1399	0.1399	1.0000e-005	0.0000	0.1400
Total	**4.6000e-004**	**0.0129**	**3.2200e-003**	**2.0000e-005**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**6.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**1.7504**	**1.7504**	**1.8000e-004**	**0.0000**	**1.7548**

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					7.6100e-003	0.0000	7.6100e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0843	0.1452	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.8228	16.8228	5.4400e-003	0.0000	16.9588
Total	**2.6100e-003**	**0.0843**	**0.1452**	**1.9000e-004**	**7.6100e-003**	**3.1000e-004**	**7.9200e-003**	**5.8000e-004**	**3.1000e-004**	**8.9000e-004**	**0.0000**	**16.8228**	**16.8228**	**5.4400e-003**	**0.0000**	**16.9588**

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	2.7000e-004	0.0128	2.0900e-003	2.0000e-005	1.1000e-004	1.0000e-005	1.2000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	1.6105	1.6105	1.7000e-004	0.0000	1.6148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	9.0000e-005	1.1300e-003	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1399	0.1399	1.0000e-005	0.0000	0.1400
Total	**4.6000e-004**	**0.0129**	**3.2200e-003**	**2.0000e-005**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**6.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**1.7504**	**1.7504**	**1.8000e-004**	**0.0000**	**1.7548**

3.3 Grading - 2020

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.1450	0.0000	0.1450	0.0709	0.0000	0.0709	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.4401	0.1975	4.5000e-004		0.0189	0.0189		0.0174	0.0174	0.0000	39.2686	39.2686	0.0127	0.0000	39.5861
Total	**0.0391**	**0.4401**	**0.1975**	**4.5000e-004**	**0.1450**	**0.0189**	**0.1638**	**0.0709**	**0.0174**	**0.0882**	**0.0000**	**39.2686**	**39.2686**	**0.0127**	**0.0000**	**39.5861**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0184	0.8712	0.1422	1.1400e-003	7.3300e-003	8.2000e-004	8.1500e-003	2.0300e-003	7.8000e-004	2.8100e-003	0.0000	109.7161	109.7161	0.0117	0.0000	110.0078
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	1.7000e-004	2.1600e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2684	0.2684	1.0000e-005	0.0000	0.2687
Total	**0.0187**	**0.8714**	**0.1444**	**1.1400e-003**	**7.5800e-003**	**8.2000e-004**	**8.4000e-003**	**2.1000e-003**	**7.8000e-004**	**2.8800e-003**	**0.0000**	**109.9844**	**109.9844**	**0.0117**	**0.0000**	**110.2765**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0652	0.0000	0.0652	0.0159	0.0000	0.0159	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	6.8600e-003	0.1365	0.2613	4.5000e-004		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	39.2685	39.2685	0.0127	0.0000	39.5860
Total	**6.8600e-003**	**0.1365**	**0.2613**	**4.5000e-004**	**0.0652**	**7.3000e-004**	**0.0660**	**0.0159**	**7.3000e-004**	**0.0167**	**0.0000**	**39.2685**	**39.2685**	**0.0127**	**0.0000**	**39.5860**

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	0.0184	0.8712	0.1422	1.1400e-003	7.3300e-003	8.2000e-004	8.1500e-003	2.0300e-003	7.8000e-004	2.8100e-003	0.0000	109.7161	109.7161	0.0117	0.0000	110.0078
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	1.7000e-004	2.1600e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2684	0.2684	1.0000e-005	0.0000	0.2687
Total	**0.0187**	**0.8714**	**0.1444**	**1.1400e-003**	**7.5800e-003**	**8.2000e-004**	**8.4000e-003**	**2.1000e-003**	**7.8000e-004**	**2.8800e-003**	**0.0000**	**109.9844**	**109.9844**	**0.0117**	**0.0000**	**110.2765**

3.4 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1800e-003	0.0923	0.0999	1.4000e-004		5.8300e-003	5.8300e-003		5.3700e-003	5.3700e-003	0.0000	11.9568	11.9568	3.8700e-003	0.0000	12.0535
Total	**9.1800e-003**	**0.0923**	**0.0999**	**1.4000e-004**		**5.8300e-003**	**5.8300e-003**		**5.3700e-003**	**5.3700e-003**	**0.0000**	**11.9568**	**11.9568**	**3.8700e-003**	**0.0000**	**12.0535**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	6.0000e-005	7.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0895	0.0895	0.0000	0.0000	0.0896
Total	**1.2000e-004**	**6.0000e-005**	**7.2000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0895**	**0.0895**	**0.0000**	**0.0000**	**0.0896**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0500e-003	0.0594	0.1026	1.4000e-004		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	11.9568	11.9568	3.8700e-003	0.0000	12.0535
Total	**3.0500e-003**	**0.0594**	**0.1026**	**1.4000e-004**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**11.9568**	**11.9568**	**3.8700e-003**	**0.0000**	**12.0535**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	6.0000e-005	7.2000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0895	0.0895	0.0000	0.0000	0.0896
Total	**1.2000e-004**	**6.0000e-005**	**7.2000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0895**	**0.0895**	**0.0000**	**0.0000**	**0.0896**

3.4 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9000e-004	1.8900e-003	2.2500e-003	0.0000		1.1000e-004	1.1000e-004		1.0000e-004	1.0000e-004	0.0000	0.2719	0.2719	9.0000e-005	0.0000	0.2741
Total	**1.9000e-004**	**1.8900e-003**	**2.2500e-003**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.2719**	**0.2719**	**9.0000e-005**	**0.0000**	**0.2741**

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	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9600e-003	1.9600e-003	0.0000	0.0000	1.9700e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**0.0000**	**0.0000**	**1.9700e-003**

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	7.0000e-005	1.3500e-003	2.3300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.2719	0.2719	9.0000e-005	0.0000	0.2741
Total	**7.0000e-005**	**1.3500e-003**	**2.3300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.2719**	**0.2719**	**9.0000e-005**	**0.0000**	**0.2741**

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	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9600e-003	1.9600e-003	0.0000	0.0000	1.9700e-003
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.9600e-003**	**1.9600e-003**	**0.0000**	**0.0000**	**1.9700e-003**

3.5 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0720	0.5061	0.6071	9.9000e-004		0.0309	0.0309		0.0309	0.0309	0.0000	85.2030	85.2030	6.3000e-003	0.0000	85.3606
Total	**4.0492**	**0.5061**	**0.6071**	**9.9000e-004**		**0.0309**	**0.0309**		**0.0309**	**0.0309**	**0.0000**	**85.2030**	**85.2030**	**6.3000e-003**	**0.0000**	**85.3606**

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	9.3200e-003	4.1200e-003	0.0544	8.0000e-005	6.8500e-003	9.0000e-005	6.9400e-003	1.8300e-003	8.0000e-005	1.9200e-003	0.0000	7.2369	7.2369	2.8000e-004	0.0000	7.2440
Total	**9.3200e-003**	**4.1200e-003**	**0.0544**	**8.0000e-005**	**6.8500e-003**	**9.0000e-005**	**6.9400e-003**	**1.8300e-003**	**8.0000e-005**	**1.9200e-003**	**0.0000**	**7.2369**	**7.2369**	**2.8000e-004**	**0.0000**	**7.2440**

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	3.9773					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.3577	0.6141	9.9000e-004		1.7600e-003	1.7600e-003		1.7600e-003	1.7600e-003	0.0000	85.2029	85.2029	6.3000e-003	0.0000	85.3605
Total	**3.9956**	**0.3577**	**0.6141**	**9.9000e-004**		**1.7600e-003**	**1.7600e-003**		**1.7600e-003**	**1.7600e-003**	**0.0000**	**85.2029**	**85.2029**	**6.3000e-003**	**0.0000**	**85.3605**

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	9.3200e-003	4.1200e-003	0.0544	8.0000e-005	6.8500e-003	9.0000e-005	6.9400e-003	1.8300e-003	8.0000e-005	1.9200e-003	0.0000	7.2369	7.2369	2.8000e-004	0.0000	7.2440
Total	**9.3200e-003**	**4.1200e-003**	**0.0544**	**8.0000e-005**	**6.8500e-003**	**9.0000e-005**	**6.9400e-003**	**1.8300e-003**	**8.0000e-005**	**1.9200e-003**	**0.0000**	**7.2369**	**7.2369**	**2.8000e-004**	**0.0000**	**7.2440**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0533	0.4710	0.4419	6.3000e-004		0.0305	0.0305		0.0282	0.0282	0.0000	54.1936	54.1936	0.0166	0.0000	54.6093
Total	**0.0533**	**0.4710**	**0.4419**	**6.3000e-004**		**0.0305**	**0.0305**		**0.0282**	**0.0282**	**0.0000**	**54.1936**	**54.1936**	**0.0166**	**0.0000**	**54.6093**

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	0.0169	0.6357	0.1712	8.3000e-004	9.2400e-003	5.3000e-004	9.7700e-003	2.6900e-003	5.1000e-004	3.2100e-003	0.0000	79.5043	79.5043	7.3800e-003	0.0000	79.6887
Worker	0.0471	0.0208	0.2749	4.1000e-004	0.0346	4.6000e-004	0.0351	9.2500e-003	4.3000e-004	9.6800e-003	0.0000	36.5537	36.5537	1.4400e-003	0.0000	36.5897
Total	**0.0640**	**0.6565**	**0.4462**	**1.2400e-003**	**0.0438**	**9.9000e-004**	**0.0448**	**0.0119**	**9.4000e-004**	**0.0129**	**0.0000**	**116.0581**	**116.0581**	**8.8200e-003**	**0.0000**	**116.2784**

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	0.0134	0.2763	0.4490	6.3000e-004		2.0800e-003	2.0800e-003		2.0800e-003	2.0800e-003	0.0000	54.1936	54.1936	0.0166	0.0000	54.6093
Total	**0.0134**	**0.2763**	**0.4490**	**6.3000e-004**		**2.0800e-003**	**2.0800e-003**		**2.0800e-003**	**2.0800e-003**	**0.0000**	**54.1936**	**54.1936**	**0.0166**	**0.0000**	**54.6093**

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	0.0169	0.6357	0.1712	8.3000e-004	9.2400e-003	5.3000e-004	9.7700e-003	2.6900e-003	5.1000e-004	3.2100e-003	0.0000	79.5043	79.5043	7.3800e-003	0.0000	79.6887
Worker	0.0471	0.0208	0.2749	4.1000e-004	0.0346	4.6000e-004	0.0351	9.2500e-003	4.3000e-004	9.6800e-003	0.0000	36.5537	36.5537	1.4400e-003	0.0000	36.5897
Total	**0.0640**	**0.6565**	**0.4462**	**1.2400e-003**	**0.0438**	**9.9000e-004**	**0.0448**	**0.0119**	**9.4000e-004**	**0.0129**	**0.0000**	**116.0581**	**116.0581**	**8.8200e-003**	**0.0000**	**116.2784**

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-004	6.5200e-003	7.8300e-003	1.0000e-005		3.2000e-004	3.2000e-004		2.9000e-004	2.9000e-004	0.0000	1.1078	1.1078	3.6000e-004	0.0000	1.1168
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.3000e-004**	**6.5200e-003**	**7.8300e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**1.1078**	**1.1078**	**3.6000e-004**	**0.0000**	**1.1168**

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					

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	8.0000e-005	3.6700e-003	6.0000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.4755	0.4755	5.0000e-005	0.0000	0.4767
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0452
Total	**1.4000e-004**	**3.7000e-003**	**9.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.5207**	**0.5207**	**5.0000e-005**	**0.0000**	**0.5219**

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	1.6000e-004	5.5700e-003	9.5800e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.1078	1.1078	3.6000e-004	0.0000	1.1168
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6000e-004**	**5.5700e-003**	**9.5800e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.1078**	**1.1078**	**3.6000e-004**	**0.0000**	**1.1168**

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	8.0000e-005	3.6700e-003	6.0000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.4755	0.4755	5.0000e-005	0.0000	0.4767
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	3.0000e-005	3.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0452	0.0452	0.0000	0.0000	0.0452

Total	1.4000e-004	3.7000e-003	9.4000e-004	0.0000	7.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.5207	0.5207	5.0000e-005	0.0000	0.5219

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Santa Clara	
Roadway Direction	East-West	
Side of the Roadway	South	
Distance from Roadway	35	feet
Annual Average Daily Traffic (ADT)	2,163	

Results

Santa Clara County

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.033 (µg/m^3)

Cancer Risk

1.28 (per million)

E Evelyn Ave

Cumulative plus project volumes from traffic report

Data for Santa Clara County based on meteorological data collected from San Jose Airport in 1997

Adjusted for 2015 OEHHA and EMFAC2014 for 2018

0.88

(per million)

Note that EMFAC2014 predicts DSL PM2.5 aggragate rates in 2018 that are 46% of EMFAC2011 for 2014. TOG gasoline rates are 56% of EMFAC2011 year 2014 rates. This is for light- and medium-duty vehciles traveling at 30 mph for Bay Area

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using ~~CALINE4~~ Cal3qhcr air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Amended Appendix K: Added Appendix E Commute Alternatives Program

0 PROMETHEUS

Flower Mart
Commute Alternatives Program
By Prometheus Real Estate Group, Inc.
December 11, 2018

Prometheus Real Estate Group, Inc. and Flower Mart will participate in the following commute alternative programs aimed at increasing transit use and reducing the need for residents and on-site employees to drive alone to work. The programs will be provided for all residents and on-site employees that live or work in the buildings. The building's owner will be responsible for ensuring that the programs are maintained.

- The building's owner will participate in the Santa Clara Valley Transportation Authority (VTA) Eco Pass Program, or an equivalent transit program, for the entire project. This provision shall be implemented for the first three (3) years of the development.

- The building's owner will provide a public transit subsidy (rent credit or equivalent) up to $300 per year ($25 per month of rent) for all new renters for their first year of residency and for the first 10 years of the development. To receive the subsidy, renters may be asked to provide evidence of transit ridership.

- The building's owner will appoint a commute coordinator to manage and monitor the commute alternative programs. Monitoring for the transit subsidy program shall begin in Year 2. The program will be evaluated by the owner and property management every three years. Recommendations for improvement or modification (notwithstanding the minimum subsidy amount, which shall not be reduced) to improve the program and increase ridership shall be presented to City of Mountain View staff for approval.

- The building's owner will provide a combination of physical and/or online informational boards providing information on commute alternatives, including local transit information, project benefits for residents, and facilitating ridesharing coordination. We will utilize our Active Building program to advertise the commute alternative program to our residents including but not limited to commute alternatives, local transit information, project benefits for residents, Zipcars, etc.

- The building's owner will provide one to two Zipcars, or equivalent car-share service, in project parking garage for resident and public use. The Zipcars space(s) will be provided in the open guest parking area located in the parking garage for the building. We intend to implement Zipcars or an equivalent car-share service prior to final occupancy being signed off on by the city.

- The building's owner will provide secure bicycle parking for all residents and a bicycle workshop on-site.

- The building's owner will provide an on-site video conferencing and/or business center with typical office amenities (including high-speed Internet, printing and faxing capabilities, and phone and video conferences) for residents to use.

- Generally consistent with Hexagon's plan as well as our most recent developments (Moffett & Montrose) the building's owner will provide three (3) electric car charging stations in the guest parking area of the garage. The development will have the necessary infrastructure in place to provide car charging stations at 10% of the parking spaces eventually and will immediately install them upon resident's requests.

- Other on-site amenities, such as a pool, spa, rooftop deck, fitness center, club room, theater room, pet spa and barbeque and fire pits in landscaped areas will also reduce the trips generated by the project.

S;n,,.a

Michael Ducote
Development Director
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www.prometheusreg.com

EXHIBIT B

FINDINGS OF FACT

FOR THE

555 EAST EVELYN AVENUE RESIDENTIAL PROJECT ENVIRONMENTAL IMPACT REPORT

CITY OF MOUNTAIN VIEW
April 2019

Findings of Fact

INTRODUCTION

To support a decision on a project for which an environmental impact report (EIR) is prepared, a lead or responsible agency must prepare written findings of fact (Findings) for each significant effect on the environment identified in the EIR (Section 21081 of the Public Resources Code). The City of Mountain View, as the lead agency, has prepared these Findings for the 555 East Evelyn Avenue Residential Project. The Findings must be adopted by the Mountain View City Council.

Public Resources Code Section 21081 states that no public agency shall approve or carry out a project for which an EIR that has been certified identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The State California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Section 15091*)*, list the possible Findings as follows:

- Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

- Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

- Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

CEQA Guidelines Section 15093 further provides:

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

PROJECT BACKGROUND AND OVERVIEW

The proposed project would demolish the existing one-story, mini-storage buildings on the site and construct a 471-unit apartment complex with a 0.68-acre public park on a 5.89-acre site. The apartments would be distributed between two separate buildings that would vary between three and five stories with a maximum height of approximately 70 feet. A below-grade parking garage would also be constructed.

The project is requesting a General Plan Amendment from General Industrial and Medium Density Residential to High Density Residential; a Zoning Ordinance Text Amendment, a Zoning Map Amendment from P-30 (Sylvan-Dale) Precise Plan to R-4 (High Density) and R3.2-2 (Multiple-Family) to R-4 (High Density), a Planned Community and Development Review Permit, a Vesting Tentative Map for condominium purposes, a Lot Tie Agreement, and a Heritage Tree Removal Permit for the removal of 16 Heritage trees.

In accordance with CEQA Guidelines, a Notice of Preparation (NOP) was circulated to the public and responsible agencies for input regarding the analysis in the Draft EIR from April 13, 2018, to May 15, 2018, and a public EIR scoping session for the project was held on May 9, 2018. In addition to this meeting that was held to provide scoping information for the Draft EIR, the proposed project has been discussed at several Environmental Planning Commission and City Council study sessions, when the public also had an opportunity to comment on the project. The Draft EIR was circulated for public review for a 45-day comment period, which commenced on October 12, 2018 and ended on October 12, 2018 (Citation 1).

Public meetings were held at the EPC on April 3, 2019 and at the City Council on April 30, 2019 to provide a public forum for comments on the Draft EIR and responses to comments. Members of the public, the EPC, and the City Council provided comments at these meetings relating to environmental issues. Formal written responses to each of the comments received during the comment period are included in the Final EIR as well as text revisions to the DEIR.

No substantial changes to the DEIR were required, and the Final EIR includes the entire DEIR by reference (Citation 2). The Final EIR was made available to the public on March 13, 2019.

RECIRCULATION NOT REQUIRED

An EIR is adequate as long as it provides specific response to all specific questions about significant environmental issues, and as long as the EIR, as a whole, reflects a good faith effort at full disclosure. "Recirculation is not required where the new information added to an EIR merely clarifies or amplifies or makes insignificant modification in an adequate EIR." (CEQA Guidelines Section 15088.5(a).)

The EIR is not inadequate nor did any of the commenters disclose any new significant information that would require recirculation of the EIR. No new significant or substantially more severe environmental impacts have been identified that would result from the Project or from an alternative or a new mitigation measure proposed as part of the Project. Moreover, no new feasible mitigation measures or alternatives have been identified that are considerably different from others previously analyzed and would clearly lessen the significant environmental impacts of the Project that the City and the applicant have declined to implement. All of the responses to comments contained in this Final EIR merely provide information that clarifies and amplifies the evaluation of impacts contained in the Draft EIR.

INCORPORATION BY REFERENCE

The Final EIR is hereby incorporated into these Findings in its entirety. Without limitation, this incorporation is intended to elaborate on the comparative analysis of alternatives, the basis for determining the significance of impacts, the scope and nature of mitigation measures, and the reasons for approving the project.

RECORD OF PROCEEDINGS

Various documents and other materials constitute the record of proceedings upon which the City Council bases its findings and decisions contained herein, including, without limitation, the Draft EIR, and the Final EIR. The documents related to the project are located in the offices of the City of Mountain View, Community Development Department, 500 Castro Street, Mountain View, California, 94039.

FINDINGS

These Findings are based on substantial evidence contained in the Final EIR for the 555 East Evelyn Avenue Residential Project, relevant technical studies supporting the EIR's analysis, and other supporting documentation included in the administrative record. As previously stated, the DEIR addresses the potential effects on the environment that are associated with the project, and the Final EIR includes the DEIR comments received on the DEIR and text revisions to the DEIR. These documents, as well as relevant technical studies, are available for review at the City of Mountain View Community Development Department. This section provides a summary of the significant environmental effects of the project that are discussed in the EIR, and provides written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding.

SUMMARY OF IMPACTS

The Final EIR indicated that significant effects on the environment to the following environmental resources would occur if the project were implemented:

- Air Quality (Construction Toxic Air Contaminants)
- Hazardous Materials (On-site Contamination)

All of the environmental impacts listed above would be reduced to less-than-significant levels through the incorporation of mitigation measures into the project. The mitigation measures are listed under each of the impacts below and are included in a Mitigation Monitoring and Reporting Program (MMRP), which has been prepared separately from these findings (Citation 3).

Significant Effects on the Environment that are Mitigated to Less-Than-Significant Levels

The Final EIR identifies significant adverse impacts that are reduced to a less-than-significant level by the mitigation measures identified in the Final EIR. It is hereby determined that the significant environmental impacts, which these mitigation measures address, will be avoided or mitigated to a less-than-significant level by incorporation of the described mitigation measures into the project.

AIR QUALITY IMPACTS

Impact AQ-3: Construction of the proposed project would temporarily result in cancer risk and PM2.5 exposure at the maximally exposed individual (MEI) at levels above the Bay Area Air Quality Management District (BAAQMD) significance threshold based on combined exhaust and fugitive dust emissions.

Mitigation

The following mitigation measure is included in the project to reduce TAC emissions impacts during project construction to a less than significant level.

MM AQ-3.1: Prior to the issuance of demolition permits, the project applicant shall submit a Emissions Reduction Plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 78 percent reduction in diesel particulate matter (DPM) exhaust emissions or greater. The plan shall be submitted to the Community Development Director prior to issuance of a demolition permit and shall include the following:

Mobile diesel-powered off-road equipment operating on-site for more than two days and larger than 25 horsepower shall, at a minimum, meet U.S. Environmental Protection Agency (EPA) particulate matter emissions standards for Tier 4 engines or equivalent.

MM AQ-3.2: Alternatively, in lieu of use of Tier 4 equipment identified in MM AQ-3.1, the construction contractor may use other measures to minimize construction period DPM emissions to reduce the estimated cancer risk and PM2.5 exposure below Bay Area Air Quality Management District (BAAQMD) thresholds. For example, use of equipment that includes California Air Resources Board (CARB)-certified Level 3 Diesel Particulate Filters or alternatively-fueled equipment (i.e., non-diesel or electric), added exhaust devices, or a combination of these measures could meet this requirement. Any alternative measures shall reduce DPM emissions to the same level or greater than MM AQ-3.1. If any of these alternative measures are proposed, the project applicant shall include them in the Emissions Reduction Plan, which shall include specifications of the equipment to be used during construction.

The Emissions Reduction Plan shall be accompanied by a letter signed by a qualified air quality specialist, verifying the equipment included in the plan meets the standards set forth in this mitigation measure.

Finding

Mitigation measures have been incorporated into the project that avoid or reduce this significant air quality impact to a less-than-significant level. The City of Mountain View hereby finds that implementation of the mitigation measure described above is feasible and it is hereby adopted and incorporated into the project as a condition of approval for the Project. Accordingly, changes or alterations have been required or incorporated into the Project which avoid or substantially lessen the significant effects as identified in the Final EIR and adoption of the mitigation measure set forth above will reduce the significant effect to a less-than-significant level. Adoption of the conditions of approval will effectively make the mitigation measure part of the Project.

HAZARDOUS MATERIALS IMPACTS

Impact HAZ-2: Construction and demolition activities could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated groundwater and soil gas.

Mitigation

The following mitigation measures would reduce impacts to construction workers, the environment, and area residents to a less-than-significant level.

MM HAZ-2.1: The project applicant shall implement the Remedial Action Plan (RAP) and a Soil Management Plan (SMP) to remove or reduce the elevated volatile organic compound (VOC) concentrations in soil, soil gas, and groundwater to reduce potential risks to human health and the environment to levels that are protective for the proposed residential redevelopment and use of the site. Prior to issuance of a grading permit, the project applicant shall update the SMP to include the following items, and shall obtain a letter from the San Francisco Bay Regional Water Quality Control Board (RWQCB) confirming that the SMP (2012) is valid.

- Protocols and procedures shall be presented for determining when soil sampling and analytical testing should be performed.
- Monitoring of vapors during excavation and grading activities shall include:
  - A low level trichloroethene (TCE) detector, capable of measuring to at least 10 parts per billion by volume or 5 micrograms per cubic meter of TCE in air, shall be used to monitor soil vapor concentrations.
  - NIOSH/MSHA-approved respirators equipped with combination organic vapor and P-100 HEPA air purifying cartridges are required for workers entering excavations and trenches greater than five feet deep.
  - If respirators are no longer desired to be worn by workers entering excavations, the sampling or screening for TCE shall be conducted by either (1) sampling air in the excavation or collecting personal air samples using TCE sampling badges (e.g., Radiello 130 or Radiello 145 samplers or equivalent) or (2) screening air in the excavation using a portable GC-MS (e.g., Hapsite GC-MS or equivalent). Sampling or screening for TCE shall be conducted for a minimum period of one full work day within representative source areas. Air samples shall be analyzed and reported on a 24-hour turnaround time and screening with a portable GC-MS shall be conducted, at a minimum, on an hourly basis.
  - If sampling or screening data collected over a minimum period of one full work day demonstrates that TCE is either (1) below a reporting limit of 5 μg/m3 in the excavation or (2) is present in the excavation at concentrations less than the Environmental Protection Agency's (EPA) Accelerated Response Action Level (7 μg/m3), the use of respiratory protection during excavation entry may be discontinued, and the contractor may terminate sampling or screening for TCE3. Personnel entering the excavation will resume using respiratory protection and

the contractor will resume sampling or screening for TCE if any of the following conditions occur:

    - Groundwater begins to enter the excavation; and
    - The excavation is enlarged by 20 feet or greater; or
    - Excavation activities commence in a new excavation area within an area suspected to have elevated TCE Vapors.

  - If sampling or screening data, with a reporting limit of 5 μg/m3 or lower, demonstrates that TCE is present at concentrations greater than 7 μg/m3, the use of respiratory protection and ventilation fans during all excavation entry shall continue, and the Environmental Professional shall notify the RWQCB within 24 hours.
  - If sampling or screening data demonstrates that TCE is present at concentrations less than 50 μg/m3, the Contractor may terminate sampling or screening for TCE while workers continue to wear respiratory protection (with fan ventilation of the excavation). If sampling or screening data demonstrates that TCE is present at concentrations greater than 50 ug/m3, the Contractor should implement additional engineering controls within the excavation, re-evaluate respiratory protection and upgrade as necessary, and continue sampling or screening until sampling or screening data demonstrates that TCE is present at concentrations less than 50 ug/m3. TCE air sampling or screening outside of the excavation shall be performed if TCE concentrations within the excavation cannot be reduced to levels below 50 μg/m3.

- Soil in contact with groundwater shall be assumed contaminated. This soil shall be segregated and stockpiled at a designated, plastic-lined stockpile area.
- Management of groundwater discharges during excavation dewatering, if required. Protocols shall be prepared to evaluate water quality and discharge/disposal alternatives (consistent with RWQCB dewatering permit requirements). A dewatering system shall be implemented during construction of the project. Water shall pumped to on-site tanks, tested, and treated prior to discharge to the public stormwater collection system or sanitary sewer. The system shall include a granulated activated carbon unit, or equivalent treatment device. Due to flow constraints, additional water storage tanks may be required to meter flows to the stormdrain system, assuming the water can be treated to a level that it can be discharged. A discharge plan shall be prepared and reviewed by the City of Mountain View Public Works Department and Fire and Environmental Compliance Division prior to discharge permits being secured from the RWQCB. The pumped water shall not be used for on-site dust control or any other on-site use. Though unlikely, if long-term dewatering is required, the means and methods to extract, treat, and dispose of groundwater also shall be presented in the discharge plan consistent with City requirements.

- Management of Site risks during earthwork activities in areas where impacted soil, soil vapor and/or groundwater are present or suspected. Worker training requirements, health and safety measures and soil handling procedures shall be described.
- Excavated soils from deeper than approximately two feet in suspect source areas (post RAP excavation depth) shall be field-screened for the presence of VOCs. Field screening (approximately every 10 lineal feet or 50 cubic yards [CYs]) shall occur using a sensitive PID (such as the ppbRAE 3000). Soil that is field- screened and "cleared" (less than 500 ppbv, or a similar level approved by the oversight agency) can be considered "clean" and can be reused for on-site fill. Potentially contaminated soil shall be segregated and stockpiled at a designated, plastic-lined stockpile area.
- Evaluation and documentation of the quality of any soil imported to the site. Soil containing chemicals exceeding residential (unrestricted use) screening levels or typical background concentrations of metals shall not be accepted.
- Evaluation of the residual contaminants to determine if they will adversely affect the integrity of below ground utility lines and/or structures (e.g., the potential for corrosion).
- Measures to reduce soil vapor and groundwater migration through trench backfill and utility conduits. Such measures shall include placement of low permeability backfill "plugs" at specified intervals on-site and at all locations where the utility trenches extend off-site. In addition, utility conduits that are placed below groundwater shall be installed with water-tight fittings to reduce the potential for groundwater to migrate into the conduits.
- The Environmental Professional shall be present on a part-time basis to observe soil conditions during the removal of existing utilities to determine if additional soil, groundwater, and air sampling should be performed. Any removed utility line that is greater than three inches in diameter shall be observed for sediment. If sediment is present, it shall be stockpiled as potentially contaminated material and sampled in accordance with the protocols outlined in the SMP.
- Prior to the start of any construction activity that involves below ground work (e.g., mass grading, foundation construction, excavating or utility trenching), information regarding site risk management procedures (e.g., a copy of the SMP) shall be provided to the contractors for their review, and each contractor shall provide such information to its Subcontractors.
- The Project Applicant's Environmental Professional shall assist in the implementation of the SMP and shall, at a minimum, perform part-time observation services during excavation, grading and trenching activities. Upon completion of construction activities, the Environmental Professional shall prepare a report documenting compliance with the SMP; this report shall be submitted to the City and the RWQCB.

The City should require written approval of this report by the RWQCB prior to approving occupancy permits.

- If a deep foundation system is proposed, the foundation of the building shall incorporate measures to help reduce the potential for the downward migration of contaminated groundwater. These measures shall be identified in the Geotechnical Investigation report and the SMP, and implemented as a part of the development plans.

MM HAZ-2.2: The project applicant shall prepare and implement a Health and Safety Plan to establish appropriate protocols for the protection of workers during construction. Workers conducting site investigation and earthwork activities in areas of contamination shall complete a 40-hour HAZWOPER training course (29 CFR 1910.120 (e)). The contractor shall be responsible for the health and safety of their employees as well as for compliance with all applicable federal, state, and local laws and guidelines.

MM HAZ-2.3: Prior to or in conjunction with construction activities, the project applicant shall prepare a report by a licensed Environmental Professional documenting implementation of the RAP. The report and shall be submitted to the RWQCB for review and approval. Once approved, the report and approval letter shall be provided to the City of Mountain View Planning Division prior to residential occupancy of the site.

Finding

Mitigation measures have been incorporated into the project that avoid or reduce this significant noise impact to a less-than-significant level. The City of Mountain View hereby finds that implementation of the mitigation measure described above is feasible and it is hereby adopted and incorporated into the project as a condition of approval for the Project. Accordingly, changes or alterations have been required or incorporated into the Project which avoid or substantially lessen the significant effects as identified in the Final EIR and adoption of the mitigation measure set forth above will reduce the significant effect to a less-than-significant level. Adoption of the conditions of approval will effectively make the mitigation measure part of the Project.

FEASIBLITY OF PROJECT ALTERNATIVES

The Draft EIR included several project alternatives. The City hereby concludes that the Draft EIR sets forth a reasonable range of alternatives to the proposed project so as to foster informed public participation and informed decision making. The City finds that the alternatives identified and described in the Draft EIR were considered and further finds one of them (a

Location Alternative) to be infeasible for the specific economic, social, or other considerations set forth below pursuant to CEQA Section 21081.

In addition to the project, the following alternatives were evaluated in the DEIR, and are more fully described in Section 7.0 of the DEIR.

No Project – No Development Alternative: The CEQA Guidelines stipulate that an EIR include a No Project - No Development Alternative to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. Under the No Project – No Development Alternative, the existing mini-storage use would remain.

Finding

The No Project Alternative would avoid the mitigated TAC and hazardous materials impacts, and all other less-than-significant impacts. The No Project - No Development Alternative would not meet any of the proposed project objectives to develop a high-density, residential project. For all these reasons, the No Project Alternative is considered infeasible.

Reduced Density Alternative: Developing the site with a smaller project of any size would likely involve a shorter construction timeframe.

Finding

The less than significant with (with mitigation) construction TAC impact would be slightly lessened in severity and the less than significant with (with mitigation) hazardous materials impact would remain the same. The operational greenhouse gas (GHG) emissions impact threshold, however, would likely be exceeded to a greater extent given the smaller service population on site. The basic objectives related to the provision of high-density, transit-oriented uses addressing the region's housing needs would be met, though to a much a lesser extent due to a lower number of residential units than the proposed project. Given the potential greater exceedance of the GHG emissions threshold and the lack of meeting the basic density objectives of the project, this alternative is not adopted.

Environmentally Superior Alternative(s): The *CEQA Guidelines* state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).

Based upon the previous discussion, the environmentally superior alternative would be the No

Project – No Development Alternative, which would avoid all project impacts. This alternative would not fulfill any of the project's objectives .

Apart from the No Project – No Development Alternative, the Reduced Density Alternative would also reduce project's less than significant (with mitigation) construction-related TAC impact. This alternative would partially meet the project objectives, though to a lesser extent with a smaller project. The Reduced Density Alternative would be the environmentally superior alternative to the proposed project.

SUMMARY

- Based on the foregoing Findings and the information contained in the record, the City Council has made the following findings with respect to each of the significant effects of the project:

  - Changes or alterations have been required in, or incorporated into, the project, which avoid or mitigate the significant effects on the environment to a less than significant level.

  - To the extent that those changes or alterations are within the responsibility and jurisdiction of another public agency, those changes have been, or can and should be, adopted by that other agency.

  - Based on the foregoing Findings and the information contained in the record, it is determined that all significant effects on the environment due to the approval of the project have been eliminated or substantially lessened to a less than significant level.

CITATIONS

1. City of Mountain View. 2018. Draft Environmental Impact Report for the 555 East Evelyn Avenue Residential Project.

2. City of Mountain View. 2019. Final Environmental Impact Report for the 555 East Evelyn Avenue Residential Project.

3. City of Mountain View. 2019. Mitigation Monitoring Program for the 555 East Evelyn Avenue Residential Project.

Exhibit C

MITIGATION MONITORING & REPORTING PROGRAM
555 East Evelyn Avenue Residential Project
State Clearinghouse #2018042038

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Air Quality Impacts				
Impact AQ-3: Construction of the proposed project would temporarily result in cancer risk and $PM_{2.5}$ exposure at the Maximally Exposed Individual (MEI) at levels above the Bay Area Air Quality Management District's (BAAQMD) significance threshold based on combined exhaust and fugitive dust emissions.	implementation of the BAAQMD Basic Construction Mitigation Measures would reduce exhaust emissions by five percent and fugitive dust emissions by over 50 percent. Implementation of MM AQ-3.1 (or MM AQ-3.2) would further reduce on-site diesel exhaust emissions by at least 84 percent when combined with the BAAQMD Basic Construction Mitigation Measures. <u>MM A0-3. I:</u> Prior to the issuance of demolition permits, the project applicant shall submit a Emissions Reduction Plan demonstrating that the off-road equipment used on-site to construct the project would achieve a fleet-wide average of at least 78 percent reduction in diesel particulate matter ,(DPM) exhaust emissions or greater. The plan shall be submitted to the Community Development Director prior to issuance of a demolition permit and shall include the following: Mobile diesel-powered off-road equipment operating on-site for more than two days and larger than 25 horsepower shall, at a minimum, meet U.S. Environmental Protection Agency (EPA) particulate matter emissions standards for Tier 4 engines or equivalent. <u>MM A0-3.2:</u> Alternatively, in lieu of use of Tier4	Project applicant and contractors implementing the project	All measures will be required as part of demolition and development permits. All measures will be printed on all construction documents, contracts, and project plans prior to issuance of permits. Oversight of implementation by the City's Community Development Department.	Prior to and during any construction activities, as specified.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	equipment identified in MM AQ-3.1. the construction contractor may use other measures to minimize construction period DPM emissions to reduce the estimated cancer risk and PM2.5 exposure below BAAQMD thresholds. For example, use of equipment that includes California Air Resources Board-certified Level 3 Diesel Particulate Filters or alternatively-fueled equipment (i.e., non-diesel or electric), added exhaust devices, or a combination of these measures could meet this requirement. Any alternative measures shall reduce DPM emissions to the same level or greater than MM AQ-3.1. If any of these alten atives measures are proposed, the project applicant shall include them in the Emissions Reduction Plan, which shall include specifications of the equipment to be used during construction. The Emissions Reduction Plan shall be accompanied by a letter signed by a qualified air quality specialist, verifying the equipment included in the plan meets the standards set forth in this mitigation measure.			
	Hazards and Hazardous Materials Impacts			
Impact HAZ-2: Construction and demolition activities could expose construction workers, the environment, and area residents to potentially unacceptable health risks from contaminated groundwater and soil gas.	The following mitigation measures would reduce impacts from contaminated groundwater and soil gas to construction workers, the environment, and area residents to a Jess than significant level. <u>MM HAZ-2.1</u>: The project applicant shall implement the Remedial Action Plan (RAP) and a Soil Management Plan (SMP) to remove or reduce the elevated VOC concentrations in soil, soil gas, and groundwater to reduce potential risks to human health	Project applicant and contractors implementing the project.	Project will be evaluated during the development review and entitlement process to identify their compliance with this measure. Measures will be required as part of demolition and development pennits, as applicable. All measures will	Prior to the approval of grading pennits.

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	and the environment to levels that are protective for the proposed residential redevelopment and use of the site. Prior to issuance of a grading pennit, the project applicant shall update the SMP to include the following items, and shall obtain a letter from the Regional Water Quality Control Board (RWQCB) confinning that the SMP (from 2012) is valid. • Protocols and procedures shall be presented for determining when soil sampling and analytical testing should be performed. • Monitoring of vapors during excavation and grading activities shall include: o A low-level Trichloroethylene (TCE) detector, capable of measuring to at least 10 parts per billion by volume or five micrograms per cubic meter of TCE in air, shall be used to monitor soil vapor concentrations. o National Institute for. Occupational Safety and Health/ Mine Safety and Health Administration-approved respirators equipped with combination organic vapor and P-100 HEPA air purifying cartridges are required for workers entering excavations and trenches greater than five feet deep. o If respirators are no longer desired to be worn by workers entering excavations, the sampling or screening for TCE shall be conducted by either (1) sampling air in the excavation or collecting personal air samples using TCE sampling badges (e.g., Radiello 130 or Radiello 145 samplers or		be printed on all construction documents, contracts, and project plans prior to issuance of pennits. Oversight of implementation by the City's Community Development Department and RWQCB.	

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	equivalent) or (2) screening air in the excavation using a portable GC-MS (e.g., Hapsite GC-MS or equivalent). Sampling or screening for TCE shall be conducted for a minimum period of one full work day within representative source areas. Air samples shall be analyzed and reported on a 24-hour turnaround time and screening with a portable GC-MS shall be conducted, at a minimum, on an hourly basis. o If sampling or screening data collected over a minimum period of one full work day demonstrates that TCE is either (I) below a reporting limit of 5 µg/m3 in the excavation or (2) is present in the excavation at concentrations less than the EPA's Accelerated Response Action Level (7 µg/m3), the use of respiratory protection during excavation entry may be discontinued, and the contractor may terminate sampling or screening for TCE3. Personnel entering the excavation will resume using respiratory protection and the contractor will resume sampling or screening for TCE if any of the following conditions occur: • Groundwater begins to enter the excavation; and • The excavation is enlarged by 20 feet or greater; or • Excavation activities commence in a new excavation area within an area			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	suspected to have elevated TCE vapors. o ff sampling or screening data, with a reporting limit of 5 µg/m3 or lower, demonstrates that TCE is present at concentrations greater than 7 µg/m3, the use of respiratory protection and ventilation fans during all excavation entry shall continue, and the Environmental Professional shall notify the RWQCB within 24 hours. o If sampling or screening data demonstrates that TCE is present at concentrations less than 50 µg/m3, the Contractor may tenninate sampling or screening for TCE while workers continue to wear respiratory protection (with fan ventilation of the excavation). If sampling or screening data demonstrates that TCE is present at concentrations greater than 50 ug/m3, the Contractor should implement additional engineering controls within the excavation, re-evaluate respiratory protection and upgrade as necessary, and continue sampling or screening until sampling or screening data demonstrates that TCE is present at concentrations less than 50 ug/m3. TCE air sampling or screening outside of the excavation shall be performed i.fTCE concentrations within the excavation cannot be reduced to levels below 50 µg/m3. • Soil in contact with groundwater shall be			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	assumed contaminated. This soil shall be segregated and stockpiled at a designated, plastic-lined stockpile area. • Management of groundwater discharges during excavation dewatering, if required. Protocols shall be prepared to evaluate water quality and discharge/disposal alternatives (consistent with RWQCB dewatering permit requirements). A dewatering system shall be implemented during construction of the project Water shall pumped to on-site tanks, tested, and treated prior to discharge to the public stormwater collection system or sanitary sewer. The system shall include a granulated activated carbon unit, or equivalent treatment device. Due to flow constraints, additional water storage tanks may be required to meter flows to the stormdrain system, assuming the water can be treated to a level that it can be discharged. A discharge plan shall be prepared and reviewed by the City of Mountain View Public Works Department and Fire and Environmental Compliance Division prior to discharge permits being secured from the RWQCB. The pumped water shall not be used for on-site dust control or any other on-site use. • Though unlikely, if long-term dewatering is required, the means and methods to extract, treat and dispose groundwater also shall be presented in the discharge plan and shall include treating/discharging consistent with City requirements. • Management of Site risks during earthwork			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	activities in areas where impacted soil, soil vapor and/or groundwater are present or suspected. Worker training requirements, health and safety measures and soil handling procedures shall be described. • Excavated soils from deeper than approximate_ly two feet in suspect source areas (post RAP excavation depth) shall be field-screened for the presence of VOCs. Field screening (approximately every 10 lineal feet or 50 cubic yards [CYs)) shall occur using a sensitive PID (such as the ppbRAE 3000). Soil that is field-screened and "cleared" (less than 500 ppbv, or a similar level approved by the oversight agency) can be considered "clean" and can be reused for on-site fill. Potentially contaminated soil shall be segregated and stockpiled at a designated, plastic-lined stockpile area. • Evaluation and documentation of the quality of any soil imported to the site. Soil containing chemicals exceeding residential (unrestricted use) screening levels or typical background concentrations of metals shall not be accepted. • Evaluation of the residual contaminants to determine if they will adversely affect the integrity of below ground utility lines and/or structures (e.g., the potential for corrosion). • Measures to reduce soil vapor and groundwater migration through trench backfill and utility conduits. Such measures shall include placement of low permeability backfill "plugs" at specified intervals on-site and at all locations where the utility trenches extend off-site. In addition,			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	utility conduits that are placed below groundwater shall be installed with water-tight fittings to reduce the potential for groundwater to migrate into the conduits. • The Environmental Professional shall be present on a part-time basis to observe soil conditions during the removal of existing utilities to determine if additional soil, groundwater, and air sampling should be performed. Any removed utility line that is greater than three inches in diameter shall be observed for sediment. If sediment is present, it shall be stockpiled as potentially contaminated material and sampled in accordance with the protocols outlined in the SMP. • Prior to the start of any construction activity that involves below ground work (e.g., mass grading, foundation construction, excavating or utility trenching), information regarding site risk management procedures (e.g., a copy of the SMP) shall be provided to the contractors for their review, and each contractor shall provide such information to its Subcontractors. • The Project Applicant's Environmental Professional shall assist in the implementation of the SMP and shall, at a minimum, perform part-time observation services during excavation, grading and trenching activities. Upon completion of construction activities, the Environmental Professional shall prepare a report documenting compliance with the SMP; this report shall be submitted to the City and the RWQCB. The City should require written			

Environmental Impacts	Mitigation and Avoidance Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	approval of this report by the RWQCB prior to approving occupancy pennits. • If a deep foundation system is proposed, the foundation of the building shall incorporate measures to help reduce the potential for the downward migration of contaminated groundwater. These measures shall be identified in the Geotechnical Investigation report and the SMP, and implemented as a part of the development plans. MM HAZ-2.2: The project applicant shall prepare and implement a Health and Safety Plan to establish appropriate protocols for the protection of workers during construction. Workers conducting site investigation and earthwork activities in areas of contamination shall complete a 40-hour HAZWOPER trainingcourse(29 CFR 1910.120 (e)). The contractor shall be responsible for the health and safety of their employees as well as for compliance with all applicable federal, state, and local laws and guidelines. MM HAZ-2.3: Prior to or in conjunction with construction activities, the project applicant shall prepare a report by a licensed Environmental Professional documenting implementation of the RAP. The report and shall be submitted to the RWQCB for review and approval. Once approved, the report and approval letter shall be provided to the City of Mountain View Planning Division prior to residential occupancy of the site.			

SOURCE: City of Mountain View. *555 East Evelyn Avenue Residential Project Environmental Impact Reporl.* October 2018.