

City of Sunnyvale

Civic Center Modernization Master Plan

Final Program Environmental Impact Report

State Clearinghouse No. 2017092075

August 2018

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Sunnyvale

City of Sunnyvale

Civic Center Modernization Master Plan

Final Program Environmental Impact Report

August 2018

Prepared for:
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Sunnyvale

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1 INTRODUCTION

1.1 PURPOSE OF THE FINAL EIR

The City of Sunnyvale (City) proposes to implement the Civic Center Modernization Master Plan ("Master Plan" or "proposed project"). This Program Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] § 21000 *et seq.*) and the amended Guidelines for the Implementation of CEQA (CEQA Guidelines) (14 California Code of Regulations [CCR] § 15000 *et seq.*) and provides an assessment of the potentially significant environmental effects of the proposed Master Plan.

The City is the "lead agency" for the Master Plan evaluated in this Draft Program EIR and the City Council is responsible for the certification of this Program EIR as adequate and complete.

The City has prepared this Program EIR to:

- Inform the general public and decision makers about the nature of the Master Plan, potentially significant environmental effects, feasible mitigation measures to avoid or mitigate those effects, and reasonable and feasible alternatives to the proposed project;
- Enable the City to consider the environmental consequences of approving the Master Plan; and
- Satisfy CEQA requirements.

In accordance with the CEQA Guidelines, after completion of the Draft Program EIR, the City is required to consult with and obtain comments from affected public agencies, and to provide the public with an opportunity to comment on the Draft Program EIR. The City is then required to respond to significant environmental issues raised in the review and consultation process (CEQA Section 15132).

As described in CEQA and the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects of proposed projects, where feasible. A public agency is obligated to balance the proposed project's significant effects on the environment with its benefits, including economic, social, technological, legal, and other benefits. The Program EIR is an informational document that, as required by CEQA, (1) assesses the potentially significant environmental effects of the proposed plan, including cumulative impacts, (2) identifies feasible mitigation measures to avoid or substantially reduce significant impacts, (3) identifies any significant and unavoidable adverse impacts that cannot be mitigated to less than significant levels, and (4) evaluates a range of reasonable alternatives to the

proposed plan, including the No Project Alternative, that would eliminate or substantially reduce any significant adverse environmental effects of the proposed project.

The CEQA lead agency is required to consider the information in the EIR, along with any other relevant information in the administrative record, in making its decision on a proposed project. Although the EIR does not determine the ultimate decision that will be made regarding implementation of the proposed project, CEQA requires the City of Sunnyvale to consider the information in the EIR and make findings regarding each significant effect identified in the EIR before it can approve the proposed project. The City Council, would certify the Final Program EIR prior to adopting the Master Plan. The City Council is required to consider the information in the Program EIR, along with any other relevant information in the administrative record, in making its decision on Master Plan.

1.2 SUMMARY OF THE PROPOSED PROJECT

1.2.1 Phase I

The first phase of the proposed project, Phase I, would involve construction of a new, four-story, up to 109,000-square foot (sf) City Hall near the corner of West Olive Avenue and South Mathilda Avenue. An underground parking garage would be constructed beneath the new City Hall. A stand-alone, up to 12,000-sf, building would be constructed directly north of the existing Public Safety Headquarters to provide additional space for public safety services. The new City Hall would house City and North Valley Job Training Consortium (NOVA) Workforce Services Department employees. Following completion of the new City Hall, the existing City Hall, City Hall Annex, City Hall South Annex (the portables south of City Hall), and the Sunnyvale Office Complex buildings would be demolished. The existing Sunnyvale Office Complex is currently occupied by City staff, NOVA Workforce Services, and several private tenants. The areas where the Sunnyvale Office Complex currently occupies would be landscaped in the interim. Photovoltaic arrays may be mounted over existing surface parking that is proposed to remain throughout implementation of the future phases, likely over surface parking located to the south of the community gardens and north of El Camino Real, and on the roofs of the proposed City Hall.

1.2.2 Future Phases

Future phases of the Master Plan would involve construction of a new two-story, up to 120,000-sf library and a two-story, up to 65,000-sf Public Safety Headquarters. The two new buildings would be constructed to the north of West Olive Avenue. An underground parking garage would be constructed beneath the library and the Public Safety Headquarters. The underground parking garage beneath the new City Hall would be expanded to the south. A secured surface parking lot for the Public Safety Headquarters would be located directly to the north of the new building. Photovoltaic arrays may be mounted over available surface parking lots. The existing Public Safety Headquarters and library would be demolished and the existing City Hall fuel dock may be removed. Alternatively, the existing library would be renovated instead of

demolished, and up to 59,000 sf of additional space would be added to the building, resulting in a total of 120,000-sf of space.

1.3 ENVIRONMENTAL REVIEW PROCESS

The Draft Program EIR was prepared to analyze the environmental impacts of the proposed project. The Draft Program EIR considered the proposed project and alternatives that would reduce or avoid significant environmental impacts. The Draft Program EIR was circulated to affected public agencies and interested parties for a 45-day review period from April 23, 2018 to June 7, 2018. Comments on the Draft Program EIR were to be submitted in writing by no later than Thursday, June 7, 2018.

In conformance with CEQA Guidelines Section 15151, EIRs should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to decide on the project and considers environmental consequences. The Final Program EIR is required to examine mitigation measures and alternatives to the project intended to reduce or eliminate significant environmental impacts.

The Final Program EIR will also be available for review at the following locations:

- Sunnyvale Public Library
- Sunnyvale Community Center
- One Stop Permit Center, City Hall
- Sunnyvale Civic Center Modernization Master Plan Project website: https://sunnyvale.ca.gov/business/projects/civic.htm

In accordance with the CEQA guidelines, the Final Program EIR will be made available to the public and commenting agencies a minimum of 10 days prior to the EIR certification hearing.

1.4 REPORT ORGANIZATION

This document is organized as follows:

- **Chapter 1: Introduction**. This chapter includes a discussion of the purpose and organization of the Final Program EIR.
- **Chapter 2: Responses to Comments**. This chapter contains copies of comments received during the public review period and responses to those comments. Each comment letter is coded. Each comment is bracketed in the margin of the letter and assigned a secondary, comment-specific number. For example, the first comment in the letter from Planning Commissioner Ken Olevson is A1-1. Each comment letter is followed by a response corresponding to the bracketed comment.
- **Chapter 3: Errata**. This chapter presents corrections or clarifications to the Draft Program EIR based on comments received. The text changes have not resulted in significant new information with respect to the proposed project, including any new potentially significant environmental impacts that cannot be mitigated to less

than significant, or in any new mitigation measures. Corrections to the text and tables of the Draft Program EIR are contained in this chapter. Underlined text represents language that has been added to the Draft Program EIR; text with ~~strikethrough~~ has been deleted from the Draft Program EIR.

- **Appendix A: Heritage Preservation Commission Meeting Transcript**. A transcript of the relevant portions of the Heritage Preservation Commission Meeting is provided.
- **Appendix B: Revised Air Quality and Greenhouse Gas Supporting Information**. The outputs from CalEEMod and Screen3 used in the analysis are provided in full. Several outputs are new or revised in response to comments from the public.

2 RESPONSE TO COMMENTS

2.1 INTRODUCTION

This section contains the comments received during the public review period on the Draft Program EIR prepared for the Master Plan and the responses to those comments.

2.1.1 List of Agencies, Organizations and Individuals Commenting on the Draft Program EIR

Public meetings were held during the public review period at the Heritage Preservation Commission Meeting on May 2, 2018, and the Planning Commission Meeting on May 29, 2018, to take verbal comments from the public. The commissioners and a member of the public asked questions and discussed the Master Plan during the Heritage Preservation Commission Meeting. All questions raised during the meeting were also answered in the meeting. A transcript of the relevant portion of the Heritage Preservation Commission Meeting is included in Appendix A, including the comments and questions made and the responses to them.

Written comments on the Draft Program EIR were received from the following public agencies and private individuals during the comment period. The comments are organized into three categories (agencies, individuals, and Planning Commission Meeting) and are listed with the name of the commenter and the date the letter was received or verbal comment taken, as shown in Table 2.1-1. Each comment letter has been assigned a code as indicated.

Table 2.1-1 Commenters on the Draft EIR and Corresponding Comment and Response Numbers

Commenter	Comment Code	Date
Agencies		
Planning Commissioner Ken Olevson	A1	5/29/2018
Planning Commissioner Carol Weiss	A2	6/6/2018
Santa Clara Valley Transportation Authority	A3	6/7/2018
Individuals		
Melodie Holden Holley	B1	5/18/2018
M. L. Stefan	B2	6/7/2018
Planning Commission Meeting		
John Cordes	C1	5/29/2018
Mei-Ling Stefan	C2	5/29/2018

2.2 RESPONSES TO AGENCY COMMENTS

Comment Letter A1

MEMORANDUM

Date: **29 May 2018**

To: **Andy Miner, Sunnyvale Planning**

From: **Ken Olevson**

Subject: Civic Center Draft Program EIR dated April 2018

Please consider the questions and comments below and address them in the final EIR

1. **Executive Summary, p 2.2**
   The EIR should specifically address the environmental results if only Phase I is completed.
   a. Description of "Future Phases" suggests that future construction is so tentative ($$ & commitment to complete), that this "Program EIR" may be too speculative to be authorized to support future projects because this is a city funded project. (Example: Library may be replaced or may be expanded without replacement)
   b. The city does a 10-year plan and 20-year projection for budgeting purposes – the time frame for this modernization project is well within those planning documents. Therefore, the lack of commitment is troubling.
   c. Later in DEIR there is reference to Phase II and Phase III (p4.2.16), which suggests there is actually a plan to complete the illustrated modernization, although previous City presentations estimated $163M for Phase I costs out of a total of $184M available to the city*, leaving only $21M available for the new DPS, new library, additional underground parking and expanded park areas. Compare this lack of specificity to the results of the City of Santa Clara which has never completed its downtown area after poor planning and the City of San Jose which moved its civic center a few miles from city center and recently relocated it to nearer downtown – again from poor planning. Sunnyvale residents don't want the same result.
   * Reference Sunnyvale Master Plan presentation dated 1 Nov 2017 by Cumming for SmithGroupJJR.
   d. Therefore, the EIR should be more definitive so that the decision-makers have a clear idea of the potential and complete environmental effects of this project if only Phase I is completed – meaning that if the money is not found to complete the grand plan - what will be the effect of a partially completed plan.

2. **Environmental Analysis, p 4.1**
   The report lacks narrative explaining how the measured data points support specific conclusions.
   This section generally has a good narrative to explain the Federal, State & Local requirements of each section discussed. It is less adequate in explaining the specific data points and their significance that support the conclusions in the report. See comments 8 & 9 below.

A1-1

A1-2

A1-3

A1-4

Subject: B2_052918_Olevson, Ken Page 1 of 3

MEMORANDUM

3. **Environmental Analysis p 4.9-15**
The vehicle traffic narrative about parking is inconsistent with the other statements.
Internal Vehicle Traffic section states that less parking would be located on the project site. This seems inconsistent with the several statements throughout the report that there will be substantial underground parking. If this statement is true, does the city plan to have residents and developers use public transit to get to city hall? This statement is also inconsistent with the traffic impact analysis that states that an increase in traffic will result from having larger buildings (see comment 10) – i.e., do cars not park at the new civic center?

A1-5

4. **Environmental Analysis p4.9-17**
The noise analysis for the relocated DPS headquarters appears to use erroneous data.
The inference in the Police Dispatch discussion is that all 6 calls/hour, to which the police respond, originate at DPS headquarters. It is my experience during my volunteer work at DPS headquarters that most responses originate from police on patrol, not while sitting at DPS headquarters. If the report statement is incorrect, then the noise analysis needs to be redone. If it is correct, it needs further substantiation.

A1-6

5. **Environmental Analysis p4.10-1**
The DPS employment data and response time data is not current.
This section is using 3 year old employment data for DPS and 4 year old data for response times. With the amount of change in Sunnyvale in the last 3-4 years, this report should use the latest data that the city has (2018 employment & response time data).

A1-7

6. **Environmental Analysis p4.10.4**
There should be information about where city hall services will be located and the effect of the relocation on construction phase environmental results.
This section states that the existing city hall services will remain available during construction. Where will these services be provided if all other buildings are currently in use or leased to others? The impact on city services, trip generation & parking during construction needs to be specifically addressed in the construction phase discussions, because it appears that the new city hall occupies some or all of the existing city hall footprint – therefore the original building activities will be relocated to somewhere.

A1-8

7. **Environmental Analysis p4.13-9**
The forecasted employment increases do not seem supported by the city's budget forecasts.
In the "Operation" section, it states that employment will increase, *as a result of this project*, when Phase I and Future Phases are complete. This appears to say that the city will embark on a hiring spree just to fill the larger buildings, regardless of the fiscal realities at the time. This statement needs further explanation.

A1-9

MEMORANDUM

8. **Technical Appendices, Appendix 4.2 Air Quality**
There is insufficient narrative in the Air Quality section to understand the data in the computer printouts and how they support the conclusions in the narrative.
The computer printouts in this appendix purports to substantiate some of the narratives earlier in the report. These computer printouts may have relevance to the author, but to folks attempting to understand the environmental impact, the lack of explanation and relevance of these 380 pages makes then generally useless as an informational tool – which is the purpose of CEQA requirements.

A1-10

9. **Technical Appendices, Appendix 4.9 Noise**
There is insufficient narrative in the Noise section to understand the data in the computer printouts and how they support the conclusions in the narrative.
The 71 pages of computer printouts in this appendix are as obtuse for informational value as those in the Air Quality section, noted in item 8 above. The data in this section needs explanation as to context and significance.

A1-11

10. **Appendix 4.22 TIA p i**
This analysis seems too simplistic in its underlying assumptions – larger buildings automatically results in more business – and needs further justification.
The executive summary states that trip generation is based upon current measured trips scaled up proportionately by the ratio of the new building square footage to the existing building square footage. This implies that the larger buildings will generate more developer visits to city planning (for a city that is nearing fully built out) and more citizen visits, just because we will have a larger building. This statement needs further justification. Is this conclusion using the same reasoning as noted in item 7 – larger buildings = more people? If so, this seems flawed and need further justification.

A1-12

Subject: B2_052918_Olevson, Ken Page 3 of 3

2.2.1 Letter A1: Planning Commissioner Ken Olevson

Response to Comment A1-1

The Program EIR for the Master Plan is intended to provide project level analysis for Phase I and program level analysis for future phases. The future phases are not speculative in terms of whether or not they would be implemented, but flexibility is built into the design and the components of future phases. The Master Plan assumes that, at some point, the future phases would be built. The Master Plan identifies these phases as part of the plan, as stated on page 3-9 of the Draft Program EIR:

> "Future phases of the Master Plan would involve construction of a two-story, up to 120,000-sf library and a two-story, up to 65,000-sf Public Safety Headquarters, as shown in Table 3.4-2. The library is anticipated to be constructed during Phase II and the Public Safety Headquarters during future phases (likely in a third phase). New emergency generators would be installed to serve the library and the Public Safety Headquarters. The existing Public Safety Headquarters, the Public Safety Building Addition, and library would be demolished, and the existing City Hall fuel dock may be removed. Alternatively, the existing library could be renovated (instead of demolished) and up to 59,000 sf of additional space would be constructed. Conceptual designs are not available at this time for the proposed buildings constructed in future phases."

The commenter's example language from the Program EIR, "the library may be replaced or may be expanded without replacement" is not suggesting that neither action could happen, but provides flexibility for the City to either construct a brand-new library or expand the existing library in a future phase. The library would be up to 120,000 sf following buildout of future phases, regardless of whether it is an expansion or new construction. Flexibility is built into several of the activities defined for the future phases, such as where the Master Plan states that, "the existing City Hall fuel dock may be removed." The Master Plan allows for a choice at a future time, but the Program EIR evaluates the impacts of removal of the fuel dock such that if it is removed, no further environmental review is needed. If it is not removed, then there are no environmental impacts per CEQA. The scope of the entire environmental analysis, likewise, broadly included all components mentioned in Chapter 3: Project Description, even if the City was not certain of inclusion or exact design, to ensure that any significant impacts were identified and mitigated, as necessary. This approach is allowable under a program EIR, per CEQA Guidelines §15168.

At the time of implementation of the future phases, the activities proposed would need to be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared, if the designs or plans were to change. Per CEQA Guidelines §15168 of the Guidelines, "If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. If the agency finds that no new effects could occur, or no new mitigation measures would be required, the agency can approve the activity as being within the scope of

the project covered by the program EIR, and no new environmental document would be required."

CEQA allows for a program EIR to be more speculative or broad about what is included in the program, but may require additional CEQA review, tiered from the program EIR, at the time of implementation if the activity is not adequately covered in the program EIR.

Response to Comment A1-2

The available budget and City planning is not within the scope of CEQA. The City has only budgeted for construction and implementation of Phase I, which is why this phase was analyzed at a project level. The Master Plan was prepared on the assumption that the City will budget for future phases at a later date.

Response to Comment A1-3

Throughout Chapter 4: Environmental Analysis, construction and operation of Phase I and future phases were separately analyzed where the impacts from Phase I would be different than those of future phases. For example, page 4.1-7 of the Draft EIR includes the visual impact assessment of Phase I separately from the other phases of the project. The analysis of impacts from Phase I includes only those activities in Phase I, and not those of future phases. The analysis addresses the visual impacts of a new City Hall and Public Safety Building Addition, and new landscaping. It assesses the visual impact of the new buildings against existing older one-to two-story brick buildings on the site after Phase I is complete, but before future phases are undertaken.

Examples of applicable analyses where Phase I and future phases were analyzed separately include, Section 4.1: Aesthetics, Impact Aesthetics-3; Section 4.2: Air Quality, Impact Air Quality-2; and Section 4.9: Noise, Impacts Noise-1 and Noise-3. The Master Plan does not contemplate that future phases would not be constructed. The EIR adequately addresses impacts if future phases were not implemented right away. Only the Phase I impacts would apply until the future phases are built. The analysis never relies on future phases to mitigate effects of Phase I, such that if a future phase is not built for an extended period of time, a significant impact would occur.

Response to Comment A1-4

The comment regarding the regulatory sections is noted. Each section includes a clear impact assessment methodology prior to the analyses. The air emission modeling outputs were attached in Appendix 4.2, but the impact assessment methodology describing the assumptions used, is presented under Section 4.2.4.3 for Section 4.2: Air Quality. Additional methodology has been added to Chapter 3: Errata to clarify the methods used to prepare the health risk analysis. The methodology used to collect the existing ambient noise levels on the project site is presented both in Appendix 4.9 and Section 4.9.3.1. The outputs from the noise monitoring equipment was attached to the memorandum in Appendix 4.9. While the printouts in Appendix 4.2 and Appendix 4.9 may be difficult to understand if a reader is not a technical specialist, they are considered supplemental information, while the information needed to understand the methods and impacts is all included in the air quality and noise analysis sections of the EIR.

Response to Comment A1-5

The information in the noise analysis stating that less parking would be available for future phases is accurate. Table 3.4-1 in the Draft EIR, provides a summary of parking under existing conditions, Phase I, and future phases. As the table details, parking is reduced following construction of future phases due to current low utilization, projected decreased demand for parking due to new technology, and transportation demand management (i.e., proximity to transit, encouraging bicycle use, carpooling, and vanpooling) (Watry, 2017). Much of the area covered by existing surface parking lots would be converted to landscaped areas. Traffic to the project site would increase due to the assumption that there would be more City employees and amenities available to the public, but the analysis assumes that they would be transported to and from there by other means than personal vehicles requiring parking spaces. Parking is not a CEQA issue, but the City is not concerned about reducing parking due to low utilization under existing conditions and other reasons stated above.

Response to Comment A1-6

It is feasible, although it may not be the normal situation, that all six calls could be answered by officers currently at the Public Safety Headquarters. The analysis in Section 4.9: Noise, provides a conservative assessment of noise conditions caused by responding to six calls an hour following relocation of the DPS. This condition has been clarified under Impacts Noise-1 and Noise-3, as shown in Chapter 3: Errata.

Response to Comment A1-7

The requested information regarding staffing and response times has been updated to provide the most recent data in Section 4.10: Public Services, as shown in Chapter 3: Errata.

Response to Comment A1-8

The footprint of the new City Hall has been designed to not overlap with the existing City Hall footprint. The existing City Hall would remain operational and open throughout construction of the new City Hall. Temporary relocation of services and employees would not be required.

Response to Comment A1-9

The analysis in Section 4.13: Energy, states that the number of employees on the project site is expected to increase following construction of Phase I and future phases due to the larger facilities. The analysis does not state that employment must increase as a result of larger buildings. Due to the larger space at the City Hall and other buildings, the City has the option to hire more employees to accommodate growth and future needs, should there be a need for it. The Program EIR analyzed an increase in employment due to the larger buildings to present a conservative analysis. The Program EIR does not require that more employees be hired if there is no need for more employees. If less employees are hired, impacts would be even less than those stated in the section.

Response to Comment A1-10

A clear methodology describing the models and assumptions is presented in Section 4.2.4.3 of Section 4.2: Air Quality. Additional methodology has been added to Chapter 3: Errata to clarify the methodology used to prepare the health risk analysis. The results of the modeling outputs

are summarized for existing conditions under Section 4.2.4.3 and future conditions under Impacts Air Quality-2, Air Quality-4, Air Quality-6, and GHG-1. The appendix is merely supplemental information and not required to understand the impact assessment.

Response to Comment A1-11

The methodology used to determine the existing ambient noise levels and the results of the sampling is detailed under Section 4.9.3.1, or Section 4.9: Noise, and in Appendix 4.9. The outputs from the noise monitoring equipment was attached to the memorandum in Appendix 4.9. The outputs are merely supplemental information and not required to understand the impact assessment.

Response to Comment A1-12

The traffic analysis, like other analyses in the EIR, was conservatively conducted assuming that the City would hire additional employees and provide more amenities due to the larger spaces available. This space allows the City the option of increasing the number of employees and services offered, should the City need or wish to do so, by fully analyzing impacts associated with more employees and visitors. Should less employees be needed, or should less visitors frequent the center, impacts would be less than those stated in the section.

Comment Letter A2

Momoko Ishijima

From: Carol Weiss [mailto:carolrlweiss@gmail.com]
Sent: Wednesday, June 06, 2018 9:04 PM
To: Andrew Miner <AMiner@sunnyvale.ca.gov>
Subject: Some Questions re: the DEIR for the Civic Center

Hi,Andy
Had these questions and comments with me last week, but have been lagging in submitting them:

1. ref. p. 4.12.12 and table 3.4.2
This project will be generating a large quantity of waste during construction.
Can any of the materials be repurposed, for example the bricks, stone, wood, and used in landscaping, as pavers/boardwalks for walking paths, trellises, benches?
How about the project using recycled materials, which are readily available, if those from the project are not suitable? I think this is only appropriate for a LEED platinum project. A2-1

2. page 3.11 "may" install rain capture systems for irrigation in phase 1 and future phases.
The "may" should be changed to "will", considering this was a recent ballot measure that passed for homeowners. A2-2

3. page 3.9
Impervious surfaces will be reduced by 27% compared to existing conditions - the new plaza "may" be composed of partially permeable materials.
Considering this a LEED platinum project, once again, can't we push for a commitment for more permeable materials in the rather large plaza, as well as throughout the project? A2-3

4. p. 2.42
What is the mitigation for a significant increase in light/glare? A2-4

5. p. 1.2 and 1.2.2
Can't we require photovoltaic arrays on the new buildings, most especially City Hall? Here again, "may" is used.
Really important to consider this when designing and building the roofs. A2-5

I believe there is an error on page 4.1.1, which claims San Jose is to the north of Sunnyvale.
I don't think so. Not the way I drive, anyway. A2-6

Thanks,
Carol

2.2.2 Letter A2: Planning Commissioner Carol Weiss

Response to Comment A2-1
Specifics regarding the exact design of and building materials proposed for Phase I and future phases were not available at the time the Draft Program EIR was prepared. Assumptions were made, as applicable, to ensure that any impacts from use of particular building materials, such as plate glass (e.g., bird strike as analyzed in Section 4.3: Biological Resources), were analyzed in the EIR. Detailed designs will comply with any LEED Platinum requirements for incorporation of recycled materials. The City will consider the recommendations for reuse of existing materials or use of recycled materials during the final design stage.

Response to Comment A2-2
The environmental analysis was conducted using preliminary design information. It was not known whether a rain capture system would be feasible from a cost or design perspective at the time the Draft Program EIR was prepared. The City will consider the recommendation to use rain capture systems during the final design stage.

Response to Comment A2-3
As stated in Chapter 3: Project Description and shown in Table 3.4-1, impervious surfaces on the project site would be reduced significantly following construction of Phase I and future phases, regardless of whether permeable materials are used for the plaza. Detailed design information for the plaza was not available at the time the Draft Program EIR was prepared. The City will consider the recommendation to use permeable materials for the plaza during the final design stage.

Response to Comment A2-4
Section 4.1: Aesthetics analyzes impacts associated with lighting and glare. Impacts from glare would not be significant, but impacts due to lighting used during construction could be significant. MM Aesthetics-1 requires lighting to be shielded or directed downward such that the light source is not directed toward residential areas or into streets, effectively reducing the impact to less than significant. The full text of MM Aesthetics-1 is in Table 2.3-1 and at the bottom of Section 4.1: Aesthetics. Impacts from lighting or glare after construction is complete and during the operational phase of the plan would be less than significant, as stated on pages 4.1-8 through 4.1-9 of the Draft EIR, and no mitigation is needed.

Response to Comment A2-5
At the time the Draft Program EIR was prepared, it was not known whether installation of photovoltaic panels would be feasible from a cost perspective as well as where exactly the panels would be installed from a design perspective. The City intends to install photovoltaic arrays, but the exact size and type of the system will be determined during final design. As stated in Chapter 3: Project Description, photovoltaic arrays may be mounted over the new buildings or surface parking lots. The City will consider the recommendation to install photovoltaic panels, particularly on City Hall, during the final design stage. Installation of photovoltaic panels was not required as mitigation for any impact and the City would continue to purchase 100 percent renewable energy from Silicon Valley Clean Energy.

Response to Comment A2-6

The error in Section 4.1: Aesthetics, has been rectified. Refer to Chapter 3: Errata for the revision.

Santa Clara Valley Transportation Authority

Comment Letter A3

June 7, 2018

City of Sunnyvale
Planning Division
P.O. Box 3707
Sunnyvale, CA 94088-3707

Attention: Momoko Ishijima

Subject: Civic Center Modernization Master Plan

Dear Ms. Ishijima:

Santa Clara Valley Transportation Authority (VTA) staff have reviewed the Draft EIR for the Civic Center Modernization Master Plan. We have the following comments.

Land Use

VTA supports the concept of land use intensification at this site, generally bounded by El Camino Real, Pastoria Avenue, Mathilda Avenue, and Olive Avenue. El Camino Real is identified as a Corridor in VTA's Community Design & Transportation (CDT) Program Cores, Corridors and Station Areas framework, which shows VTA and local jurisdiction priorities for supporting concentrated development in the County.

VTA notes that the City of Sunnyvale is currently developing the El Camino Real Corridor Specific Plan. The draft plan describes the Civic Center project site as part of the "Downtown Node" with a "Change/Opportunity Potential" of "Medium" (El Camino Real Corridor Specific Plan Assumptions Map). Design goals of the Downtown Node include a strong street presence, and pedestrian-style development that supports the vision of the Grand Boulevard Initiative along El Camino Real. VTA supports these efforts and recommends that the Civic Center Plan embody these design goals.

A3-1

Pedestrian and Bicycle Accommodations and Access to Transit

The existing sidewalk network at the Civic Center site includes varying accommodations for pedestrians. In general, the sidewalks located throughout the current Civic Center do not include landscaping strips as a buffer between pedestrians and automobiles. The Master Plan Phase 1 and Future Phases site plans in the DEIR (pages 3-7 and 3-10) appear to show a mix of sidewalks with and without buffers. VTA recommends that the City use this modernization project to widen sidewalks and install buffered landscaping strips on all streets within and along the perimeter of the Civic Center site, including El Camino Real, Mathilda Avenue and Pastoria Avenue. This recommendation is supported by the Draft El Camino Corridor Specific Plan Vision Element 1, which calls for "efficient circulation patterns" and Element 2, which supports

A3-2

3331 North First Street
San Jose, CA 95134-1927
Administration 408-321-5555
Customer Service 408-321-2300

Solutions that move you

"safe and convenient multi-modal access". Resources on pedestrian quality of service, such as the Highway Capacity Manual 2010 Pedestrian Level of Service methodology, indicate that a buffer containing landscaping elements, such as closely planted street trees, improves pedestrian perceptions of comfort and safety on a roadway.

A3-2

The Phase 1 and Future Phases site plans show internal pathways connecting the Civic Center buildings with Mathilda Avenue, El Camino Real and Pastoria Avenue. VTA supports such accommodations which will encourage site access by walking, improve pedestrian comfort, and support access to nearby transit on El Camino Real, specifically to VTA Route 22 bus stops on El Camino Real. VTA notes that as part of VTA's approved 2018/2019 service plan, Route 54 on Olive Avenue will be discontinued (this is acknowledged on DEIR page 4.11-26).

A3-3

The TIA Report for the project in Appendix 4.11 states that "The project is currently not proposing any bicycle facility upgrades" and also states that "This project is currently in the preliminary planning stages and therefore bicycle parking has not been determined" (TIA, page vi). VTA notes that new development presents an opportunity to seamlessly integrate high capacity bicycle parking into building design, and that the Sunnyvale Civic Center Master Plan also has the potential to construct and modernize multimodal facilities on both Olive Avenue and All American Way as part of the project. VTA reiterates its recommendation from the NOP and draft TIA stage that the City analyze and plan for improved bicycle facilities at this stage of project development.

A3-4

VTA supports bicycling as an important transportation mode and thus recommends inclusion of conveniently located bicycle parking for the project. Bicycle parking facilities can include bicycle lockers or secure indoor parking for all-day storage and bicycle racks for short-term parking. VTA's Bicycle Technical Guidelines provide guidance for estimating supply, siting and design for bicycle parking facilities. This document may be downloaded from http://www.vta.org/bikeprogram.

Transportation Demand Management and Auto Trip Reduction

The DEIR and TIA make almost no reference to Transportation Demand Management (TDM) or trip reduction efforts. Note B under Table 3.4-1 in the DEIR states that "Parking is reduced from Phase I to future phases due to current low utilization, projected decreased demand for parking due to new technology, and transportation demand management (i.e., proximity to transit, encouraging bicycle use, carpooling, and vanpooling)." The Auto Trip Reduction Statement in the TIA Report (page i) states that "No TDM plan will be implemented." Given the size of the project, the projected uses, and the fact that new private-sector development in Sunnyvale is required to meet TDM/trip reduction requirements, the Master Plan should include a TDM

A3-5

program and the EIR should analyze how such a program could reduce auto trips, vehicle miles traveled and greenhouse gas emissions.

VTA recommends that the City consider the following TDM/Trip Reduction strategies:

- Project design to encourage walking, bicycling, and convenient transit access;
- Parking pricing, unbundled parking, or parking cash-out programs;
- Adoption of an aggressive trip reduction target with a Lead Agency monitoring and enforcement program;
- Transit fare incentives such as such as free or discounted transit passes on a continuing basis;
- Bicycle lockers and bicycle racks
- Showers and clothes lockers for bicycle commuters
- Parking for car-sharing vehicles

A3-5

Thank you for the opportunity to review this project. If you have any questions, please call me at (408) 321-5784.

Sincerely,

Roy Molseed
Senior Environmental Planner

cc: Patricia Maurice, Caltrans
Brian Ashurst, Caltrans

SU1709

2.2.3 Letter A3: Santa Clara Valley Transportation Authority

Response to Comment A3-1
As analyzed in Section 4.8: Land Use and Planning, the proposed project would comply with the Precise Plan for El Camino Real and implement applicable design guidelines policies. The commenter's support of the design of the proposed project is noted.

Response to Comment A3-2
Section 4.11: Traffic and Transportation under Impact Traffic-6 analyzed the impact of operation of the proposed project on pedestrian facilities and safety. The impact would be less than significant. The City will consider the recommendation to widen sidewalks and install buffered landscaping strips on all streets within the project site during the final design stage.

Response to Comment A3-3
The commenter's support for internal walking paths connecting the buildings within the Civic Center Campus to adjacent roadways is noted.

Response to Comment A3-4
The City will consider the recommendation to install or improve bicycle facilities during the final design stage. The specific transportation demand management strategies that would be implemented were not identified at the time the Draft EIR was prepared. Section 4.11: Traffic and Transportation under Impact Traffic-1 analyzed the impact of project-related vehicle trips on local roadway intersections, which was determined to be less than significant. No transportation demand management strategies were necessary to mitigate impacts.

As discussed in Chapter 3: Project Description, land would be entitled along Mathilda Avenue during Phase I for the approved Mathilda Avenue plan line changes. The Mathilda Avenue plan line involves installation of wider sidewalks and bicycle lanes, while maintaining the same number of lanes along the road (City of Sunnyvale, 2015).

Granted no new significant environmental effects or substantial increases in the severity of previously identified significant effects are found, and no new information of substantial importance becomes available, the environmental analysis conducted for the proposed project would be sufficient, should the City install bicycle facilities during construction of the proposed project in the future. Since preparation of the Draft Program EIR, several bicycle facilities have been incorporated into the conceptual Master Plan design. These facilities would involve removal of parking and installation of new bicycle lanes on West Olive Avenue, installation of secure bicycle storage and showers for employees in the new City Hall, and provision of bicycle parking in accordance with City standards.

Response to Comment A3-5
As stated above, specific transportation demand management strategies were not identified at the time the Draft Program EIR was prepared. As stated in Response to Comment A3-4, transportation demand management strategies were not required to mitigate an impact in the context of CEQA.

2.3 RESPONSES TO INDIVIDUAL COMMENTS

Comment Letter B1

Momoko Ishijima

From: Melodie Holden Holley <melholden@gmail.com>
Sent: Friday, May 18, 2018 2:46 PM
To: Momoko Ishijima
Subject: objection to City Hall "modernization"

Hello,

I am a resident and Sunnyvale homeowner. I object to the plan to redo the civic center because it is too expensive and unnecessary to serve our needs. B1-1

I'd be happy to support a smaller renovation and expansion if you first proved/demonstrated that it is necessary. But this plan for "modernization" is actually much more than that - new buildings and campus. Please keep government focused on the things that matter most, not fancy offices. B1-2

Thank you,

Melodie Holley
784 Pear Ave
Sunnyvale

2.3.1 Letter B1: Melodie Holden Holley

Response to Comment B1-1

The commenter's objection to the proposed plan is noted. The issue regarding cost of implementing the proposed plan is outside the scope of CEQA, as economics effects are not treated as significant effects on the environment (CEQA Guidelines Section 15131(a)). The City has determined that all of the Civic Center buildings are undersized and functionally deficient. The existing City Hall is not configured efficiently. The existing Sunnyvale Library does not meet the regional average service ratio of 0.76 sf of library space per capita, limiting the ability to accommodate program needs or provide innovative technology for users. The existing Public Safety Headquarters is lacking adequate space for evidence storage and secure parking for sworn staff. The objectives presented in Chapter 3: Project Description identify how the proposed Master Plan would meet these needs.

Response to Comment B1-2

The commenter did not identify a specific issue regarding environmental impacts within the scope of CEQA. The City of Sunnyvale Civic Center Modernization Program Location and Land Use Master Plan, dated February 2016, provides a detailed needs assessment (ABA, 2016). The City's objectives for the proposed plan require replacement and/or renovation of the existing buildings to increase the size, efficiency, and integration of modern technology. Chapter 3: Alternatives screened several alternatives, including a Renovation and Expansion Alternative. Each alternative was evaluated to determine whether it met the basic project objectives, is potentially feasible, and avoids or reduces significant environmental impacts. The Renovation and Expansion Alternative would retain, but renovate and expand, the existing buildings for a total 96,000 additional square feet of space. This alternative would not meet all of the objectives and would increase the significance of several environmental impacts, and was therefore rejected.

Comment Letter B2

Civic Center draft EIR comments M.L.Stefan,2018 June 7

Civic Center draft EIR comments M.L. Stefan, 2018 June 7

The draft EIR falls short of sufficiently addressing or mitigating the environmental impacts in a thoughtful manner. B2-1

Noise and air quality : sensitive receptors

(1) Little Tree left out of the Table on p.53 listing distances within which noise blanket or barrier is required. There should be a real-time noise monitor at the boundary of the school. I would also suggest testing off school hours before real work starts. (2) There should be real-time air quality monitors (for PM_{10} and $PM_{2.5}$ and diesel exhaust) at the boundary of Little Tree. (3) The draft EIR has not considered halting dusty work at the times when children are exposed to outdoor air. (4) Will there be a manager designated to be responsible for working with the school, and for seeing to it that the children are not exposed to health hazards? B2-2 B2-3

Public Service

The draft EIR has not paid attention to the implications of losing the fuel station in the master plan. As the station is used by fire trucks and emergency vehicles, besides public safety vehicles, the loss of the station may mean compromising public service. Where will these vehicles get fuel? Is a new fueling station going to be set up somewhere else, and what will be its environmental impact in the new location? Or will these vehicles get fuel at commercial gas stations? How will that affect the response time? I think the station should remain in service till all such vehicles are electrified in the future. B2-4

Hydrology& Stormwater; water usage

I suggested (input dated 2017/10/26, p.135 of Appendix):

> **Stormwater management: study the water drainage capacity of the soil in Civic Center, so as to assess the feasibility of 100% stormwater capture within site to recharge the aquifer by a combination of rain gardens, bioswales, permeable paving, additional tree planting, and perhaps an infiltration pond.**

All the stormwater from my roof drains into the vegetated areas around my house without any problems (even in the wet season of 2016), except for ~250 G which I divert into storage.

The proposed mitigation methods for stormwater management are outdated.

Impact Hydrology-4: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.	Potentially significant	**MM Hydrology-1: Construction Stormwater Management** If construction occurs during the rainy season (i.e., November to April [4]), temporary detention basins shall be installed to ensure that stormwater flows from the project site into the stormwater collection system do not increase during construction.	Less than significant with mitigation
Impact Hydrology-5: The proposed project could create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	Potentially significant	**MM Hydrology-1: Construction Stormwater Management** **MM Hazards-4: Spill Prevention and Response**	Less than significant with mitigation

p.50

Instead, urban green infrastructure should be used to capture and clean up stormwater for recharging the aquifer. https://www.epa.gov/green-infrastructure https://www.epa.gov/npdes/stormwater-planning https://www.epa.gov/green-infrastructure/build-resiliency-drought

During the drought years, Santa Clara Valley Water District had to use imported water to recharge our aquifer to prevent land subsidence and property damage. Rebates are now offered for rain gardens and cisterns. Grassroots Ecology, a non-profit organization, has actively worked with cities, esp. Palo Alto http://www.grassrootsecology.org/greening-urban-watersheds/

Non-potable water should be used for landscaping. For example, http://www.purplepipeco.com/ B2-5

Civic Center draft EIR comments M.L.Stefan,2018 June 7

Transportation demand management

The draft EIR lacks a concrete plan for transportation demand management. The reduction in parking space per building sq ft (p.147) is not a metric for reduction of vehicle traffic, as there is an increase in the sq footage of the buildings, and there is an oversupply of parking spaces at present. The Caltrain station and VTA buses on El Camino Real have always been there. Unless specific actions are taken, how can there be magically an increase in the use of public transit to result in a 10% reduction in vehicle traffic? To start with, there should be at least a transportation demand management plan for those who go to work at the Civic Center. Telecommuting should be allowed according to the nature of the work. Parking should not be free for single-occupancy vehicles driven by city employees. This would be the first step towards fair value commuting. The fees collected can go towards commute benefits. Residents like convenient, online services. Teleconferencing for residents to give public comments in council meetings and other meetings would reduce the need to drive, as well as enable greater participation.

B2-6

Traffic and Transportation

As a parking garage is planned on All America Way beyond Phase 1, I suggested (input dated 2017/10/26, p.135 of Appendix) that traffic analysis should include:

Traffic circulation to enter and exit site, and around the parking garage[Note2] Estimate time and identify bottlenecks in the event of an emergency evacuation from site. Note 2: Alternative locations for parking structure: Consider 2 exit+entry points, each leading to a different street, e.g. around the intersection of Olive & Charles St, or Olive & Pastoria…

However, I do not see such an analysis done.



I think it is important to examine how a higher volume of traffic exiting All America Way would interfere with a safe traffic flow on Mathilda (especially during afternoon peak commute), given the proximity to the Mathilda/El Camino Real intersection. In addition, note that the

B2-7

Construction and demolition waste

should *not* be taken to landfill by Waste Management, but should be taken to Zanker Recycling. In addition, since reuse is more desirable than recycle, consider giving the public the opportunity to take what they can use before material is sent away.

Draft EIR p.356	Construction & demolition waste	Excavation spoils
Phase I	7700 tons	24420 cy
II & III	9190 tons	80300 cy

Should be taken to Zanker Recycling in San Jose! http://www.zankerrecycling.com/



Other examples of recycling:
Old refrigerant
https://www.agasamericas.com/products-services/refrigerants
Old HVAC http://www.oneilrecycling.com/

B2-8

Civic Center draft EIR comments M.L.Stefan,2018 June 7

Waste : in energy and other resources

Phase I –operational in 2022 includes a new Public Safety addition. This addition will be eliminated in Phase III- operational in 2035. How can one justify the demolition of a 12-year-old building that costs $18 M to construct, and the expenditure of energy to build, and to demolish, and all the wasted material? Recalling that oft-used photo of haphazard evidence storage, I would suggest that an organizer should be hired to design efficient storage. More space can also be freed up in Public Safety by moving Neighborhood Preservation back to City Hall, to co-locate with Planning. I had the greatest difficulty in getting to see Neighborhood Preservation staff in the secured building of Public Safety. Neighborhood Preservation does not deal with criminal activities, and does not need to be in a secured building.

B2-9

Alternatives that reduce environmental impacts

Eliminate Phase III for reasons stated above.
Move future garage on All America Way to the intersection of Olive & Charles.
Underground parking to be ½ level below grade and ½ above. This reduces excavation waste, and can make use of some natural lighting.

B2-10

Aesthetics

Aesthetics of this building example



A conversation I had with my innocent spouse, "A" being his responses.
Q: What do you think of this building?
A: It is under construction.
Q: (surprised) Why do you think it is under construction?
A: It has plywood on the sides and big holes and gaps.
Q: (laughter) That is the way it is supposed to be.
A: It looks ugly.

B2-11

2.3.2 Letter B2: M. L. Stefan

Response to Comment B2-1

The comment is noted. This Program EIR has been prepared in accordance with CEQA (Public Resources Code [PRC] § 21000 *et seq.*) and the amended CEQA Guidelines (14 California Code of Regulations [CCR] § 15000 *et seq.*) and provides an assessment of the potentially significant environmental effects of the proposed Master Plan. This Program EIR provides an analysis of the Master Plan, including a project-level analysis of Phase I, which will ensure that Phase I can be implemented without further CEQA review. Additional CEQA review is not necessary for future phases granted the construction and operational activities proposed to occur are within the scope of the proposed project analyzed in this Program EIR, no new significant environmental effects or substantial increases in the severity of previously identified significant effects are found, and no new information of substantial importance becomes available.

Response to Comment B2-2

Impact Noise-4 analyzes the effects of temporary increases in ambient noise during construction on Little Tree Montessori International School of Sunnyvale. As shown in Table 4.9-13 of the Draft EIR, the only activity that would result in an exceedance of the temporary ambient noise threshold would be staging, due to proximity. Ambient noise would increase from 63.6 dBA L_{eq} to 84 dBA L_{eq} at 35 feet away, exceeding the threshold of 10 dBA above existing ambient noise levels. MM Noise-1 requires use of acoustic barriers around all staging areas, reducing the noise level by at least 5 dBA (to 78 dBA at 35 feet). At 59 feet, the noise level would be 73.6 dBA, which would not be considered an exceedance. As such, MM Noise-1 effectively reduces the temporary noise impact from staging activities 59 feet or further away on Little Tree Montessori International School of Sunnyvale to less than significant. Minor changes to MM Noise-1 were made to clarify the application of noise barriers, as shown in Chapter 3: Errata. MM Noise-4 requires the City to coordinate with Little Tree Montessori International School of Sunnyvale to identify noise-sensitive periods, such as nap times, and avoid construction activities within 59 feet of the school during the noise-sensitive period. Noise levels at day care centers are generally high from children playing, except during these noise-sensitive periods. The mitigation is considered adequate to reduce the impact to less than significant. Noise monitors are not necessary to reduce the impact on this receptor.

Response to Comment B2-3

The Draft EIR presents a quantitative analysis of health risk impacts from construction of each phase at the maximally exposed residence. In response to this comment, the health risks from construction activities were modeled at Little Tree Montessori International School of Sunnyvale. Additional descriptions of methodology and quantitative analysis under Impact Air Quality-4 has been conducted, as detailed in Chapter 3: Errata.

BAAQMD identifies significance thresholds for impacts on sensitive receptors from individual projects and cumulative sources within a 1,000-foot zone of influence, as described under Section 4.2.4.2. Construction emissions from Phase I activities would result in an exceedance of the individual project threshold for annual $PM_{2.5}$ concentrations at the nearest residence and the

total cancer risk from all construction activities would be exceeded at the Little Tree Montessori International School of Sunnyvale, resulting in potentially significant impacts. MM Air Quality-1 and MM Air Quality-2, which require fugitive dust and exhaust controls, would reduce the quantitative emissions and concentrations of air pollutants modeled for the proposed project to below BAAQMD significance thresholds. The impact on adjacent sensitive receptors would be reduced to less than significant with mitigation, as detailed further under Impacts Air Quality-4 and Air Quality-6. Air monitors are not needed to mitigate the impact to less than significant.

Implementation of MM Air Quality-1 would minimize airborne fugitive dust from construction activities by requiring wetting of exposed surfaces and covering of loose materials during transport. MM Air Quality-1 also requires identification of a contact at the City of Sunnyvale who shall respond to dust complaints and take corrective action within 48 hours, in accordance with BAAQMD recommendations. The impact on sensitive receptors, including Little Tree Montessori International School of Sunnyvale, would not be significant with mitigation.

Response to Comment B2-4

The removal of the City Hall fuel dock was included in the scope of the proposed project to ensure that any associated environmental impacts were analyzed. The City would not remove the fuel dock unless alternative means of fueling emergency vehicles are identified and implemented, such as trucking fuel to the Civic Center or use of an off-site fueling station, or if on-site fueling is no longer required due to fleet electrification or some other reason. Analyzing the impacts of removal does not require the City to remove the fuel dock. At the time the Draft EIR was prepared, the City had not identified an alternative to using the fuel dock, if one is needed. When the City determines that the fuel dock is no longer needed or identifies alternatives means of fueling, a determination will be made regarding what level of additional CEQA review is needed. Additional information has been added to Chapter 3: Errata making this clear.

Response to Comment B2-5

As stated in Chapter 3: Project Description and analyzed in Section 4.7: Hydrology and Water Quality, impervious surfaces would decrease following construction of Phase I and future phases, compared to existing conditions. Stormwater runoff would decrease, as a result, and the impact would be less than significant. Impervious surfaces would temporarily increase during construction and potentially increase flooding. MM Hydrology-1, which requires installation of on-site stormwater retention during construction to ensure that on-site and off-site flooding does not occur, if construction occurs during the rainy season, was implemented to reduce the impact from stormwater runoff on flooding during construction.

Response to Comment B2-6

As stated in Response to Comment A3-4, transportation demand management strategies were not required to mitigate an impact in the context of CEQA.

Response to Comment B2-7

The commenter's concerns about safety associated with increased traffic volumes, as well as any interference in emergency evacuation, were addressed in the environmental analysis. Section

4.11: Traffic and Transportation analyzes traffic hazard impacts, under Impact Traffic-4. Impacts on emergency response and evacuation plans are analyzed in Section 4.6: Hazards and Hazardous Materials, under Impact Hazards-7. Information regarding vehicle queues as a result of project-related traffic were provided for informational purposes at the bottom of Section 4.11: Traffic and Transportation.

New traffic conflicts could be created as a result of the new parking locations and changed and consolidated access points. The potentially significant impacts would be minimized with implementation of MM Traffic-2, which requires the City to evaluate and modify the design of project site driveways in accordance with Caltrans Highway Design Manual standards for driveways, and trim trees and landscaping to maintain line of sight for drivers entering and exiting project site access points. No other traffic safety hazards were identified.

No specific evacuation plan or route has been determined by the City due to the variability of responses needed in the event of a disaster. The City's Emergency Operations Center (EOC) determines evacuation during an emergency (City of Sunnyvale, 2012). The existing EOC is too small and the layout is not adequate to meet the needs of the City. Phase I of the proposed project would include a 12,000-sf stand-alone building directly to the north of the existing Public Safety Headquarters, which would include a dedicated space for the EOC. The proposed project would not interfere with but would rather encourage efficient and adequate emergency response or evacuation.

Vehicle queues are not a CEQA impact because the increase in vehicle queue length would not affect level of service for intersection operations, cause traffic hazards, or impact alternative transportation. Project traffic would increase the number of vehicles on local roadways potentially increasing delays at intersections such that vehicle backups would exceed existing available vehicle storage space available in the left turn pocket during the peak hour. Three intersections, Mathilda Avenue/ Iowa Avenue, Mathilda Avenue/ West Olive Avenue, and Mathilda Avenue/ El Camino Real, would experience an exceedance of vehicle storage space due to project traffic. Appendix 4.11 provides further information on other intersections including Mathilda Avenue/ All America Way, which would not experience an exceedance of vehicle storage space. Optimized traffic signal timings will update the cycle lengths of the traffic signals and reallocate green time to the heavy movements, which will alleviate the queues that exceed the turn pocket storage length at the above listed intersections.

Response to Comment B2-8

The analysis under Impact Utilities-6, in Section 4.12: Utilities and Services Systems, is intended to present the worst-case scenario to ensure that the proposed project would not exceed a landfill's permitted capacity. The City would divert recyclable materials in accordance with the goals of the City's Zero Waste Strategic Plan and is not prohibited from recycling a greater percent of construction debris. Clarification that diversion could occur at any appropriate sorting facility was added to the analysis, as shown in Chapter 3: Errata.

Response to Comment B2-9

The size of the Public Safety Headquarters with the Public Safety Addition would total up to 53,000 sf, following construction of Phase I. The Master Plan includes objectives requiring dedicated space for the Emergency Operations Center and an upgraded crime lab facility as well as more efficient, modern facilities to meet the future service delivery needs of the City. Phase I would meet the some of the objectives and needs of the City. The final size of the new Public Safety Headquarters following construction of Phase III, would be up to 65,000 sf, which is a 23 percent increase in size compared to Phase I. The Program EIR conservatively analyzed the impacts from Phase III for the soonest years that construction and operation could occur. The City may choose to construct Phase III further in the future due to need and cost; therefore, the interim facility is needed. The Public Safety Addition would be built and then removed for construction of the permanent facility in Phase III. While it would be removed in the future phase, materials would likely be recycled and/or salvaged per LEED platinum requirements. Since the interim facility is needed, it would not be considered wasteful.

The existing 41,000-square-foot Public Safety Headquarters was constructed in 1985. Energy and water use standards in new construction is substantially more efficient than those from the 1980s. The Public Safety Headquarters built in Phase III would require removal of the existing and the addition to build a new, cohesive facility that is more efficient than the Phase I facility (i.e., the existing 1985 building and the addition).

The City further proposes that all buildings run on electricity, which would be generated from carbon free energy sources, either on-site or from Silicon Valley Clean Energy. In the long-term, energy use on the Civic Center Campus would decrease as a result of construction of new buildings and removal of older buildings.

The Neighborhood Preservation Unit is led by a Public Safety Captain and addresses code enforcement to protect the health and safety of residences. This unit is appropriately located within the Public Safety Headquarters.

Response to Comment B2-10

As detailed in Chapter 3: Project Description, several underground garages are proposed for construction over the course of master plan implementation. During Phase I, an underground parking garage would be constructed beneath City Hall, accessible from All America Way. During Phase II, the underground parking garage beneath the new City Hall would be expanded to the south and an underground parking garage would be constructed beneath the new library, accessible from South Pastoria Avenue. Finally, during Phase III an underground parking garage, accessible from Charles Street, would be constructed beneath the new Public Safety Headquarters. In general, the proposed underground garages would be constructed beneath new buildings. Adding an alternative that requires all underground garages to be only half below grade would not reduce any significant impacts and may not meet objectives.

Elimination of Phase III would not meet all of the objectives of the proposed project. The Maintenance of Existing Public Safety Headquarters Location Alternative, described further in

Chapter 5: Alternatives, would involve construction of the new Public Safety Headquarters and secured lot in generally the same location as the existing Public Safety Headquarters. Instead of an entirely new Public Safety Headquarters, the existing Public Safety Headquarters and Public Safety Building Addition may be expanded and renovated to achieve the size of up to 65,000 sf. This alternative was found to be the environmentally superior alternative because it would reduce the significant and unavoidable impact from permanent increases in ambient noise due to police sirens associated with the proposed project, while still meeting the basic objectives.

Response to Comment B2-11

The commenter's concern over the appearance of the new City Hall has been noted. Section 4.1: Aesthetics, under Impact Aesthetics-3, analyzes whether the proposed project would substantially degrade the existing visual character or quality of the site and surroundings. As analyzed, due to adherence to the City's design guidelines and vision for the Civic Center, as well as general conformance with neighboring new commercial and mixed-use buildings, the proposed project would not significantly degrade the visual character of the project site.

2.4 PLANNING COMMISSION MEETING

Comments C1 and C2

PLANNING COMISSION MEETING

PLANNING COMMISION MEETING

Date/Time:	May 29, 2018 – 7:00 pm
Location:	Council Chambers, Sunnyvale City Hall
Project:	Sunnyvale Civic Center Modernization Master Plan Draft Program Environmental Impact Report (DEIR)
Subject:	**Public Comments on the Draft Program EIR**

Summary

During the Planning Commission meeting on May 29, 2018, Sunnyvale Associate Planner Momoko Ishijima presented to the public and planning commissioners a summary of the Civic Center Modernization Project DEIR. Two residents provided comments on the DEIR. The following section is the transcript of the relevant portion of the meeting audio recording from 7:20 to 10:13 minutes when community members provided public comments.

Transcript

John Cordes: Good evening commissioner, the back chair speaking for myself this evening. I want to thank the city staff doing such an excellent job in the draft DEIR. They covered all the basics. It is a well written report, covered all the areas that I concern about. I will submit some written comments later on with some detailed questions. I want to know more of the storm impact, causes it said potential significant. I was hoping we can use more impermeable surfaces than we currently have, excuse me, a lot more permeate surface, permeable surface, there we go, than we are currently use for our parking lot. That will hopefully improve, eliminate some of the stormwater drainage issues. I also want to encourage the City to do a lot more rainwater capture. As you seeing there is a State ballot measure right now to make addition and modification to building for stormwater rainwater capture, to not be increasing your assessments. So, hopefully the City is gonna do that. As a home owner who installed 3400 gallons system in my house, usually for four months after the last rain I run out of water to rely on city water for my yard. Thank you very much. C1-1

Mei-Ling Stefan: Good evening, I would make a comment first, on Draft EIR page 356 talks about the disposal of waste. I was horrified to learn that there will be landfill. I would suggest that demolition and construction waste, and excavation spoils be taken to Zanker Recycling in San Jose. C2-1 I have a few questions. For the onsite fuel station, I think it will be removed. Where will fire trucks and safety vehicles go to get gas when the onsite fuel station is removed? C2-2 And, how would that affect the response time and services to the public? C2-3 And a second set of question is I was wondering the emergency evacuation from underground parking garages, how many entrance and exit points are there? And, exactly which road they will be using? C2-4 I think future phases beyond phase I it will be a parking garage, which is next

Page | 1

to All American Way. Is there any analysis or traffic emerging or entering All American Way? I don't think I've seen an analysis on that point. Thank you. C2-4

POWERPOINT SLIDE PRESENTED BY MEI-LING STEFAN DURING PLANNING COMMISSION MEETING

2018/05/29 Planning Commission, Agenda 2: Civic Center draft EIR Mei-Ling Stefan

Draft EIR p.356	Construction & demolition waste	Excavation spoils
Phase I	7700 tons	24420 cy
II & III	9190 tons	80300 cy

Should be taken to Zanker Recycling in San Jose! http://www.zankerrecycling.com/





Acknowledgement for photos: Ecogreen Group of Silicon Valley

2.4.1 Commenter C1: John Cordes

Response to Comment C1-1
As stated in Response to Comment B2-4, impervious surfaces would decrease following construction of each phase, compared to existing conditions. Impervious surfaces would temporarily increase during construction, resulting in increased stormwater runoff and potential for flooding. MM Hydrology-1, which requires installation of on-site stormwater retention during construction to ensure that on-site and off-site flooding does not occur, if construction occurs during the rainy season, would be implemented to reduce the impact on flooding during construction.

2.4.2 Commenter C2: Mei-Ling Stefan

Response to Comment C2-1
As stated in Response to Comment B2-7, the analysis under Impact Utilities-6 is intended to present the worst-case scenario to ensure that the proposed project would not exceed a landfill's permitted capacity. The City would divert recyclable materials in accordance with the goals of the City's Zero Waste Strategic Plan and is not prohibited from recycling a greater percent of construction debris. Some clarification that diversion could occur at any appropriate sorting facility was added to the analysis, as shown in Chapter 3: Errata.

Response to Comment C2-2
As stated in Response to Comment B2-3, the City would not remove the fuel dock unless alternative means of fueling emergency vehicles are identified and implemented, or if on-site fueling is no longer required. As noted, when the City determines that the fuel dock is no longer needed or identifies alternatives means of fueling, a determination will be made regarding what level of additional CEQA review is needed.

Response to Comment C2-3
The designs of the proposed underground parking garages were not finalized at the time the Draft Program EIR was prepared. At the time of analysis, one egress and ingress point was proposed for each parking garage. The traffic hazard analysis presented in Section 4.11: Transportation and Traffic under Impact Traffic-4 accounted for the possibility that the locations and number of the driveways could change dependent upon final design. The proposed underground garages would be built according to current building code regulations, which accounts for emergency evacuation routes and safety.

Response to Comment C2-4
As stated in Response to Comment B2-9, several underground garages are proposed for construction over the course of Master Plan implementation. At the time the Draft Program EIR was prepared, the underground parking garages constructed beneath and adjacent to City Hall, would be accessible from All America Way. The underground parking garage constructed beneath the new library would be accessible from South Pastoria Avenue and the underground parking garage constructed beneath the new Public Safety Headquarters would be accessible from Charles Street.

As stated in Response to Comment B2-6, an analysis of vehicle queues caused by project traffic at nearby intersections, including Mathilda Avenue/ All America Way, was conducted and presented for informational purposes only. Only three intersections would experience an exceedance of vehicle storage space. Mathilda Avenue/ All America Way would not experience an exceedance of vehicle storage space, as detailed in Appendix 4.11.

2.5 REFERENCES

ABA. (2016, February). City of Sunnyvale Civic Center Modernization Program Location and Land Use Master Plan.

City of Sunnyvale. (2012, June 11). City of Sunnyvale Annex. *Santa Clara County Hazard Mitigation Plan*.

City of Sunnyvale. (2015, October 19). An Ordinance of the City Council of the City of Sunnyvale Amending the List of Official Plan Line Maps in Section 19.06.050 (Maps-Adopted-Designation) of Title 19 (Zoning) of the Sunnyvale Municipal Code to Amend the Mathilda Avenue Plan Line. *Ordinance No. 3063-15*.

Watry. (2017, September). Civic Center Parking Occupancy Surveys and Summary.

3 ERRATA

3.1 INTRODUCTION

This chapter presents revisions that have been made to the Draft Program EIR text. These revisions provide corrections, additions, or clarifications. The text revisions are organized by resource topics. Underlined text represents language that has been added to the Draft Program EIR; ~~text with strikethrough~~ has been deleted from the Draft Program EIR.

3.2 DRAFT PROGRAM EIR REVISIONS

3.2.1 Chapter 2: Executive Summary

Page 2-3 is changed as follows:

> Alternative 2: Maintenance of Existing Public Safety Headquarters Location is the environmentally superior alternative because it would reduce ~~one of~~ the impacts from conflict with noise standards and ~~the impact~~ from permanent increases in ambient noise due to use of police sirens.

3.2.2 Chapter 2: Executive Summary

Page 2-39 is changed as follows:

Impact Utilities-3: The proposed project could require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Potentially significant	**MM Hydrology-1: Construction Stormwater Management**	Less than significant with mitigation

3.2.3 Chapter 3: Project Description

Page 3-9 is revised as follows:

> The existing Public Safety Headquarters, the Public Safety Building Addition, and library would be demolished, and the existing City Hall fuel dock may be removed. The fuel dock would be removed if alternative means of fueling is identified or if fueling is no longer needed, in the event of fleet electrification. At this time, alternative means of fueling emergency vehicles have not been identified.

3.2.4 Section 4.1: Aesthetics

Page 4.1-1 is revised as follows:

> The City forms part of a continuous urban landscape with the neighboring cities of ~~San Jose to the north,~~ Mountain View to the west, Los Altos to the southwest, Cupertino to the south, and San Jose and Santa Clara to the east.

3.2.5 Section 4.2: Air Quality and Greenhouse Gas Emissions

An additional description is added at the end of the "Health Risk Analysis" methodology on page 4.2-18 as follows:

> The maximum health risks were modeled for the maximally exposed residence that would be exposed to construction emissions during each phase of the proposed project. During Phase I, the nearest residential receptor to construction activities would be located on the east side of South Mathilda Avenue. The nearest residential receptor to the Phase II construction activities would be located on the west side of South Pastoria Avenue. Phase III construction activities would be located on the east side of Charles Street. Exposure of residents was modeled to occur for 350 days a year in accordance with BAAQMD's guidance (BAAQMD, 2012). The maximum health risks were also modeled at Little Tree Montessori International School of Sunnyvale during each phase of construction. Exposure of the children at the school was modeled to occur for 260 days a year, due to the use of the school as a daycare during weekdays.
>
> The maximum cumulative health risks were modeled at a residence on the east side of Mathilda Avenue due to the proximity to the permitted stationary sources on the project site, adjacent major roadways, and construction activities.

Page 4.2-19 is revised as follows:

> Architectural coatings on the proposed ~~control~~ buildings and parking lots would be required to comply with BAAQMD Regulation 8, Rule 3, Architectural Coatings.

The impact analysis under Impact Air Quality-4, starting on page 4.2-24 has been expanded as follows:

> **Toxic Air Contaminants**
>
> OEHHA (2015) recommends assessing cancer risk for construction projects that last for 2 months or longer at the maximally-exposed individual resident or sensitive receptor. Each phase of construction would occur for up to 18 months. Diesel-powered equipment and vehicles such as haul trucks, backhoes, and excavators would be used during construction. Diesel-powered equipment and grading would emit TACs in the form of diesel exhaust emissions and particulate matter (i.e., dpm). Diesel exhaust is a complex mixture of gases, vapors, and fine particles, some of which are suspected or known to cause cancer in humans. The cancer risk, non-cancer chronic health hazard, and annual $PM_{2.5}$ concentrations caused by project construction equipment dpm emissions at the nearest sensitive receptors for each phase are shown in Table 4.2-13 and Table 4.2-14.

The first year of construction in Phase I would exceed the annual $PM_{2.5}$ threshold at the nearest residence. No other exceedances of the BAAQMD significance thresholds would occur during project construction at the nearest residences.[1] The total cancer risk from all construction activities combined would exceed the threshold at Little Tree Montessori International School of Sunnyvale. The impact on sensitive receptors from Phase I and Phase II construction activities would be potentially significant. MM Air Quality-1 requires implementation of the BAAQMD fugitive dust control BMPs and MM Air Quality-2 requires construction equipment to be fitted with Level 3 Diesel Particulate Filters and for engines to meet the USEPA Certified Tier 3 emission standards.

Table 4.2-13 Unmitigated Maximum Health Risk Impacts at the Nearest Sensitive Receptors to the Proposed Project

Source	Cancer Risk (cases per million people)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Phase I Construction [a]			
2020	3.04	0.08	**0.39**
2021	1.24	0.03	0.16
Phase II Construction [b]			
2023	1.90	0.05	0.25
2024	0.78	0.02	0.10
Phase III Construction [c]			
2033	0.84 ~~0.73~~	0.02 ~~0.01~~	0.11 ~~0.09~~
2034	0.39 ~~0.34~~	0.01 ~~0.01~~	0.05 ~~0.04~~
BAAQMD Individual Project Significance Threshold	**>10.0**	**>1.0**	**>0.3**
Threshold Exceeded?	No	No	**Yes**

[1] The equipment used during future phases of construction are assumed to emit fewer emissions due to more stringent CARB regulations in future years, which is why the health risk impacts are lower during construction of future phases than during Phase I (CARB, 2018).

Source	Cancer Risk (cases per million people)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)

Note:

[a] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest residential receptor to the New City Hall construction site facing and east of South Mathilda Avenue.

[b] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest residential receptor to the new library construction site facing and west of South Pastoria Avenue.

[c] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest residential receptor ~~north~~ east of the ~~New~~ new Public Safety Headquarters construction site.

Table 4.2-14 Unmitigated Maximum Health Risk Impacts at Little Tree Montessori International School of Sunnyvale

Source	Cancer Risk (cases per million people)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Phase I Construction			
2020	5.71	0.05	0.27
2021	1.87	0.02	0.09
Phase II Construction			
2023	5.16	0.05	0.25
2024	2.12	0.02	0.10
Phase III Construction			
2033	1.02	0.01	0.05
2034	0.50	< 0.01	0.02
Total	**16.88** [a]	-	-
BAAQMD Individual Project Significance Threshold	**>10.0**	**>1.0**	**>0.3**
Threshold Exceeded?	**Yes**	No	No

Note:

[a] Cancer risk from construction activities at a single receptor is additive.

Mitigated cancer risk, non-cancer chronic health hazard, and annual $PM_{2.5}$ concentrations for Phase I construction at the nearest residence and across all phases at Little Tree Montessori International School of Sunnyvale are shown in Table 4.2-~~14~~15 and Table 4.2-16. The impact on sensitive receptors from construction activities would be reduced to less than significant with mitigation.

Table 4.2-~~14~~15 Mitigated Maximum Health Risk Impacts at the Nearest Sensitive Receptors to the Proposed Project

Source	Cancer Risk (cases per million people)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Phase I Construction [a]			
2020	0.36	0.01	0.05
2021	0.19	0.01	0.02
BAAQMD Individual Project Significance Threshold	**>10.0**	**>1.0**	**>0.3**
Threshold Exceeded?	No	No	No

Note:

[a] The unmitigated cancer risk, hazard index, and $PM_{2.5}$ concentration from project construction are estimated at the nearest residential receptor to the New City Hall construction site facing and east of South Mathilda Avenue.

Table 4.2-16 Mitigated Maximum Health Risk Impacts at Little Tree Montessori International School of Sunnyvale

Source	Cancer Risk (cases per million people)	Hazard Index	Max. Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Phase I Construction			
2020	0.82	0.01	0.03
2021	0.35	< 0.01	0.01
Phase II Construction			
2023	1.29	0.01	0.05
2024	0.53	< 0.01	0.02
Phase III Construction			
2033	1.02	0.01	0.05
2034	0.50	< 0.01	0.02
Total	**4.51** [a]	-	-
BAAQMD Individual Project Significance Threshold	**>10.0**	**>1.0**	**>0.3**
Threshold Exceeded?	No	No	No

Note:

[a] Cancer risk from construction activities at a single receptor is additive.

The table numbering for all subsequent tables, starting with Table 4.2-15 and ending with Table 4.2-18 increases by two throughout Section 4.2: Air Quality and Greenhouse Gas Emissions due to the addition of two new tables.

3.2.6 Section 4.7: Hydrology and Water Quality

Page 4.7-3 is revised as follows:

> The San Francisco Bay South, into which the City's storm drainage system ultimately drains to, is identified as polluted with ~~(SWRCB, 2012)~~ (SWRCB, 2017):

Page 4.7-15 is revised as follows:

> The San Francisco Bay South is currently an impaired waterbody with levels of several types of pollutants in excess of standards ~~(SWRCB, 2012)~~ (SWRCB, 2017).

Page 4.7-17 is revised as follows:

> ~~SWRCB. (2012, April 8). Final 2012 California Integrated Report. *Clean Water Act Section 303(d) List/ 305(b) Report*. Retrieved from http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml~~
>
> SWRCB. (2017, October 3). Final 2014/2016 California Integrated Report. *Clean Water Act Section 303(d) List/ 305(b) Report*. Retrieved from http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

3.2.7 Section 4.9: Noise

Additional language has been added to page 4.9-17 to as follows:

> Although police dispatch is not a new use, the use is moved to a location closer to residences, compared to the existing secured parking lot, which is approximately 440 feet away from the nearest residence. Approximately 140 officers are dispatched daily to respond to calls (Spath, 2017). Officers may be dispatched from the Public Safety Headquarters or from officers already on patrol. Police officers may test sirens prior to leaving the secured lot or may use sirens when exiting the secured lot to respond to a call. Siren usage is not limited by any regulation and sirens are tested daily under existing conditions (City of Sunnyvale, 2018). Police sirens emit approximately 120 dBA at a distance of approximately 10 feet (National Institute of Justice, 2000). Receptors are located 15 feet from Charles Street, where officers may exit when responding to calls. Siren noise at these receptors would be approximately 105 dBA. To present a conservative analysis, all of the calls are assumed to be answered by officers at the Public Safety Headquarters. If officers respond to an average of six calls per hour from the Public Safety Headquarters and each call results in 3 seconds of exposure to residents, the average hourly noise level at the nearest residential receptors would be approximately 90 dBA L_{eq} (outdoors).

Revisions to the distances on page 4.9-23 have been made as follows:

> Noise levels at Little Tree Montessori International School from various construction activities would be reduced with use of acoustic blankets, as required by MM Noise-1,

but noise levels from some construction activities could still exceed the threshold and remain disruptive to receptors at the school. MM Noise-4 requires the City to coordinate with Little Tree Montessori International School of Sunnyvale to identify noise-sensitive periods, such as nap times, and avoid construction activities within ~~55~~ 59 feet of the school during the noise-sensitive period. Only a small portion of staging activities fall within ~~55~~ 59 feet of the school and are subject to restrictions under MM Noise-4. Temporary construction impacts on Little Tree Montessori International School of Sunnyvale would be less than significant with mitigation.

MM Noise-1 on page 4.9-28 is revised as follows:

MM Noise-1: Noise Management Plan

The City shall prepare a Noise Management Plan that includes the following elements at a minimum:

- **Best Management Practices.** The plan shall identify noise best management practices to be implemented during construction, including but not limited to:
  - Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
  - Construct solid plywood fences (minimum 8 feet in height) or erect noise control blanket barriers between on-site demolition/construction sites and receptors (e.g., residences~~,~~ and library~~, and Little Tree Montessori International School of Sunnyvale~~) as defined below. Noise barriers shall also be installed around the perimeter of all staging areas to reduce noise impacts on receptors (e.g., residences, library, and Little Tree Montessori International School of Sunnyvale).

Receptor	Distances within which Noise Blanket or Barrier is Required		
	Demolitions & Site Preparation	Foundation Construction	Building Construction & Finishing
Residence	80 feet	60 feet	N/A
Library	200 feet	140 feet	80 feet

  - Position stationary noise-generating equipment as far as possible from receptors (preschool, residences and the library).
- **Construction Schedule.** The plan shall include a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent noise-sensitive land uses, including residences, Little Tree Montessori International School of Sunnyvale, and the Sunnyvale Library, so that construction activities can be scheduled to minimize noise disturbance during noise-sensitive periods (nighttime, preschool nap times, library events, etc.). The schedule shall identify noise-sensitive periods and define noise reduction techniques.
- **Community Liaison.** The plan shall designate a "Community Liaison" to ensure coordination between construction staff and neighbors to minimize disruptions due to construction noise and vibration.
- **Notices.** The plan shall identify receptors within 400 feet of the project that will receive construction notices. Construction notice details are identified below:
  - A notice with the name and phone number of the Community Liaison shall be posted on the fencing surrounding the construction work site on the project site.
  - Residents and schools shall be sent a notice at least 7 days prior to the start of construction.
  - Residences within 500 feet of nighttime construction shall receive additional notice 7 days prior to each occurrence of nighttime construction.
  - Notices shall include details regarding the construction schedule and the phone number for the Community Liaison, in addition to tips for reducing noise.
- **Noise Complaints.** The Community Liaison shall respond to any local complaints regarding construction noise and vibration. The Community Liaison shall determine the cause of the noise or

vibration complaint and implement reasonable measures to correct the problem. Reasonable measures could include the following:

- Installation of temporary sound absorption barriers (i.e., sound walls, noise control blankets)
- Use of mufflers on heavy equipment.
- Locating of stationary noise sources (i.e., generators) as far as feasible from existing residences and Little Tree Montessori International School of Sunnyvale.

Applicable Location(s): Project site

Performance Standards and Timing:

- **Before Construction:** Prepare a Noise Management Plan that includes the specified components
- **During Construction:** Implement the Noise Management Plan
- **After Construction:** N/A

Revisions to the distances on page 4.9-29 have been made as follows:

MM Noise-4: Noise at Schools

The City shall coordinate with administrators at the Little Tree Montessori International School of Sunnyvale to identify noise-sensitive periods (such as nap times) as required by MM Noise-1 and restrict construction activities that have the potential to generate noise levels over 73 dBA at the school (staging activity such as generator use or movement of materials with heavy equipment) within ~~55~~ 59 feet of the school during these noise-sensitive periods.

Applicable Location(s): Construction locations within ~~55~~ 59 feet of Little Tree Montessori International School of Sunnyvale

Performance Standards and Timing:

- **Before Construction:** Coordinate with school administrators to identify noise-sensitive periods
- **During Construction:** Restrict construction within ~~55~~ 59 feet of the school during noise-sensitive periods.
- **After Construction:** N/A

3.2.8 Section 4.10: Public Services

Data regarding the staffing and response times for public safety officers and police services has been updated on page 4.10-1 as follows:

> In ~~2015~~ 2017/2018, the Sunnyvale Department of Public Safety employed 201 sworn public safety officers ~~(Local Agency Formation Commission of Santa Clara County, 2015)~~ (Ngo, 2018).
>
> The Sunnyvale Department of Public Safety has mutual aid agreements with the Santa Clara County, San Jose, Mountain View, and City of Santa Clara Fire Departments. These agreements cover responses to incidents in areas of common shared boundaries between jurisdictions.
>
> **Fire Services**
>
> The City is served by six fire stations. The nearest fire station to the project site is Fire Station #1 located a little over a half mile to the north.

Police Services

~~In 2015~~ During fiscal year 2017/2018, 84 of the Department of Public Safety's 201 public safety officers were designated to ~~police~~ patrol services. ~~During fiscal year 2014, there~~ There were ~~38,133~~ 40,175 calls for police service, and the average response time for Priority One calls was 4 minutes and ~~39~~ 10 seconds during this period (Ngo, 2018). The City also provides assistance to regional SWAT (Special Weapons And Tactics) teams in Santa Clara County, and provides its armored vehicle and mobile emergency operations centers as a resource for other County agencies upon request (Local Agency Formation Commission of Santa Clara County, 2015).

Page 4.10-6 is revised as follows:

Ngo, P. (2018, July 16). Chief for the Sunnyvale Department of Public Safety. (M. Ishijima, Interviewer)

3.2.9 Section 4.12: Utilities and Service Systems

Additional language has been added to page 4.12-12 as follows:

Recyclable materials would be diverted at the SMaRT Station or other appropriate sorting facility to achieve the goals of the City's Zero Waste Strategic Plan.

3.2.10 Section 4.13: Energy Resources

Revisions have been made to page 4.13-7 as follows:

Indirect energy use includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing. As part of the LEED Platinum construction practices, construction waste would be minimized, and a proportion of the materials used would be from recycled sources. Fuel use would be consistent with typical construction and manufacturing practices and would not require excessive or wasteful use of energy. The impact would be less than significant.

Operation

The buildings constructed during Phase I and future phases would be designed to achieve a LEED Platinum rating. To achieve this rating many sustainable features would be incorporated to increase water efficiency, improve indoor air quality, ~~minimize construction waste,~~ and decrease energy use.

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4 MITIGATION MONITORING AND REPORTING PROGRAM

4.1 INTRODUCTION

When approving projects with mitigation measures that if implemented would avoid or lessen significant impacts, CEQA requires public agencies to adopt monitoring and reporting programs or conditions of project approval to mitigate or avoid the identified significant effects (Public Resources Code Section 21081.6(a)(1)). A public agency adopting measures to mitigate or avoid the significant impacts of a proposed project is required to ensure that the measures are fully enforceable, through permit conditions, agreements, or other means (Public Resources Code Section 21081.6(b)). The mitigation measures required by a public agency to reduce or avoid significant project impacts not incorporated into the design or program for the project may be made conditions of project approval as set forth in a Mitigation Monitoring and Reporting Program (MMRP), detailed in Table 4.3-1. The program must be designed to ensure project compliance with mitigation measures during project implementation.

4.2 FORMAT

This MMRP is organized in a table format, keyed to each significant impact and mitigation measure. Only mitigation measures adopted to address significant impacts are included in this program. Each mitigation measure is set out in full, followed by a tabular summary of monitoring requirements. The column headings in the tables are defined as follows:

- **Mitigation Measure.** This column presents the significant impact and full mitigation measure.
- **Implementation Responsibility.** This column assigns the party responsible for implementation of the measures
- **Monitoring Responsibility.** This column assigns the party responsible for monitoring implementation.
- **Timing and Performance Standards:** Identifies at which stage of the project, mitigation must be completed. Performance standards are identified that must occur during the specified stage of project implementation to determine that the objectives of the mitigation are met.

4.3 ENFORCEMENT

This MMRP will be incorporated as a condition of project approval. All mitigation measures must be carried out to fulfill the requirements of approval.

Table 4.3-1 Civic Center Modernization Master Plan Mitigation, Monitoring, and Reporting Program

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Aesthetics				
Impact Aesthetics-5 **MM Aesthetics-1: Shield Night Lighting** Construction lighting shall not generally be used except when necessary such as for utility connections in roadways or when natural light during regular construction hours (Monday through Friday from 7:00 am to 6:00 pm and on Saturday from 8:00 am and 5:00 pm) is limited. Stationary lighting used during construction shall be shielded and directed downward or oriented such that the light source is not directed toward residential areas or into streets where glare could impact motorists or pedestrians.	Contractor	City of Sunnyvale Community Development Department	**Prior to Construction:** N/A **During Construction:** Install shielded lighting **After Construction:** N/A	
Air Quality and Greenhouse Gas Emissions				
Impact Air Quality-1 **MM Air Quality-1: Fugitive Dust Control** At a minimum the following control measures must be implemented during construction: • When moisture content is low enough to create dust, all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, or as often as needed to control dust emissions. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be	Contractor	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Post a publicly visible dust complaint sign **During Construction:** Implement fugitive dust control measures **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
laid as soon as possible after grading unless seeding or soil binders are used. • Post a publicly visible sign with the telephone number and person to contact at the City of Sunnyvale regarding dust complaints. The City of Sunnyvale shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. • Construction equipment shall be properly maintained by a certified mechanic.				
Impact Air Quality-1 **MM Air Quality-2: Exhaust Controls** All construction equipment used during Phase I construction shall be fitted with Level 3 Diesel Particulate Filters (DPF) and engines shall meet or exceed the U.S. Environmental Protection Agency Certified Tier 3 emission standards. Prior to issuance of any construction permit, the construction contractor shall ensure that all construction plans submitted to the City of Sunnyvale clearly show the requirement for Level 3 DPF and Tier 3 or higher emission standards for construction equipment. The construction contractor shall maintain a list of all operating equipment in use on the project site for verification by the City of Sunnyvale Building Division official or their designee. The construction equipment list shall state the makes, models, and number of construction equipment onsite to verify compliance with the requirement for equipment to have Level 3 DPF and Tier 3 or higher emission standards.	Contractor	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Identify use of Tier 3 engines and Level 3 DPF on construction plans **During Construction:** Implement exhaust control standards **After Construction:** N/A	
Impact Air Quality-2: Implement Mitigation Measure MM Air Quality-1 (see above)				

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Impact Air Quality-3: Implement Mitigation Measure MM Air Quality-1 and Air Quality-2 (see above)				
Impact Air Quality-4: Implement Mitigation Measure MM Air Quality-1 and Air Quality-2 (see above)				
Impact Air Quality-6: Implement Mitigation Measure MM Air Quality-1 and Air Quality-2 (see above)				
Biological Resources				
Impact Biology-1 **MM Biology-1: Nesting Bird Measures** **Pre-Construction Survey** • Use of heavy equipment, grading, demolition, construction, and/or tree removal, shall avoid the nesting season to the greatest extent feasible. • If construction activities occur during the nesting season, a pre-construction survey for active bird nests in the project site shall be conducted on the project site and within 500 feet of the project site by a qualified biologist within 3 days prior to construction start. 1. If no nesting or breeding behavior is observed, construction may proceed. 2. If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work could affect the active nest. If it is determined that construction would not affect an active nest, work may proceed. 3. If it is determined that construction activities are likely to impair the successful rearing of the young, a 'no-disturbance buffer' in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior. • The extent of the 'no-disturbance buffer' shall be determined by a qualified biologist in consultation with CDFW and shall depend on the level of noise or disturbance, line of sight between the nest and the	Contractor working with qualified wildlife biologist	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Conduct nesting bird survey; Identify and implement no disturbance buffer, as necessary **During Construction:** Conduct daily inspections for birds and limit lighting **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
disturbance area, the type of bird, ambient levels of noise and other disturbances, and other topographic or artificial barriers. • 'No-disturbance buffers' shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged. • A qualified wildlife biologist shall inspect the active nest to determine whether construction activities are disturbing to the nesting birds or nestlings. If the qualified wildlife biologist determines that construction activities pose a disturbance to nesting, construction work shall be stopped in the area of the nest, and the 'no-disturbance buffer' expanded. **Inspections** • Construction workers shall conduct daily inspections for nests. If a nest is discovered by workers on the project site during daily inspections, work shall stop and the qualified wildlife biologist shall be called to the site, who shall determine whether construction activities could affect nesting and establish a "no-disturbance buffer', if necessary, as described above. **Lighting** • Lighting shall be limited to areas required for operations or safety, shall be directed on-site to avoid backscatter, and shall be shielded from public view to the extent practical. Lighting that is not required to be on during nighttime hours shall be controlled with sensors or switches operated such that lighting shall be on only when needed.				
Impact Biology-4: Implement Mitigation Measure MM Biology-1 (see above)				
Impact Biology-5 **MM Biology-2: New Trees** New trees shall be sourced from certified disease-free stock.	Contractor	City of Sunnyvale Community Development Department and	**Prior to Construction:** Identify tree source as certified disease-free prior to purchase **During Construction:** Plant trees	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
		Department of Public Works	**After Construction:** N/A	
Impact Biology-5 **MM Biology-3: Tree Protection Plan** The Tree Protection Plan, prepared in accordance with § 19.94.110 and incorporating the techniques identified in § 19.94.120, will also include the following requirements: **Project Arborist** The Project Arborist identified to assist with removal of protected trees, relocation of protected trees, and construction activities in the vicinity of protected trees throughout construction shall be certified by the International Society of Arboriculture. **Ground-Disturbing Activities** Ground-disturbing activities shall be conducted outside of the dripline of protected trees. When ground-disturbing activities (i.e., trenching, excavating) encounters roots smaller than two inches occurs outside of the dripline of protected trees, the roots shall be hand trimmed, making clear, clean cuts. All damaged, torn, and cut roots shall be given a clean cut to remove ragged edges, which promote decay. Trenches shall be filled within 24 hours, but, where, this is not possible, the side of the trench/excavation area adjacent to the protected trees shall be shaded with four layers of dampened, untreated burlap, wetted as frequently as necessary to keep the burlap wet. Roots two inches or larger, when encountered, shall be reported immediately to the Project Arborist, who shall decide whether the applicant may cut the roots as mentioned above or shall excavate by hand or with compressed air under the root. The root shall be protected with dampened burlap. In addition, the top two feet of the foundation closest to the protected trees shall be air spaded or hand dug under supervision of the Project Arborist to locate and evaluate any significant roots prior to mechanical excavation. The Project Arborist shall be required to submit a report to the City regarding the findings of the excavation and recommend any	Contractor working with Project Arborist	City of Sunnyvale Community Development Department and Department of Public Works	**Prior to Construction:** Complete Tree Protection Plan prior to removal of protected trees **During Construction:** Implement tree protection restrictions; Plant trees in accordance with approved replacement ratio **After Construction:** Monitor replacement trees	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
additional actions needed to protect the roots to preserve the health and structure of both the redwood and oak trees. **Underground Utilities** To avoid conflict with roots, underground utilities shall be routed outside of an area, ten times the diameter of a protected tree. In addition, where it is not possible to reroute pipes or trenches, the utility shall be routed beneath the dripline of the tree. The boring shall take place not less than three feet below the surface of the soil in order to avoid encountering feeder roots. **Protected Tree Replacement** Protected trees removed during construction shall be replaced using a ratio of between 1:1 and 1:4, depending on the size of the protected tree removed and the size of the replacement tree, in accordance with the City of Sunnyvale Community Development Department Tree Replacement Standards. **Monitoring** The planted replacement trees shall be monitored by the City to ensure that the trees have survived, and shall replace any trees that die.				
Impact Biology-7: Implement Mitigation Measure MM Biology-1 (see above)				
Cultural and Tribal Cultural Resources				
Impact Cultural-1 **MM Cultural-1: Documentation of the Sunnyvale Civic Center Historic District** Documentation of the Sunnyvale Civic Center Historic District using the standards and guidelines provided by the Historic American Landscapes Survey (HALS) should be prepared. The documentation shall, at a minimum, include (1) a historical narrative and descriptive report using the standard HALS outline format; (2) a plan that identifies the key building and cultural landscape features (to be attached as supplemental material to the report); and (3) large format photographs that show general views to illustrate the overall setting of the historic district's buildings and landscape and individual views of key	City of Sunnyvale working with experienced HALS documentation personnel	City of Sunnyvale Community Development Department	**Prior to Construction:** Conduct historic documentation prior **During Construction:** N/A **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
features such as the buildings, entrance plazas and other circulation features, structures (such as arbors or walls), streets, the central lawn and the character of the vegetation, and details. Photographs and other field work associated with the documentation must be completed prior to any demolition or alteration of the buildings and cultural landscape features within the Sunnyvale Civic Center Historic District. The documentation shall be prepared under the oversight of a person with experience in HALS documentation and one who meets the National Park Service's qualifications standards for Historical Landscape Architect. Copies of the documentation (report, plan, digital prints of the large format photographs, and index to photographs) shall be provided in hard copy and in portable document format (pdf) to local repositories (such as the Sunnyvale Library and the Sunnyvale Historical Society) and the Environmental Design Archive at the University of California, Berkeley.				
Impact Cultural-1 **MM Cultural-2: Documentation of the City Hall** Documentation of City Hall using the Historic American Buildings Survey (HABS) guidelines for the Outline Format Report and HABS photography of representative views of the interior and exterior shall be prepared. The documentation shall be prepared by a person with experience in preparing HABS documentation and one who meets the Secretary of the Interior's Historic Preservation Professional Qualifications for Architectural History. Copies of the outline report (both a hard copy and as a pdf) should be provided to local repositories (such as the Sunnyvale Library and the Sunnyvale Historical Society) and the Environmental Design Archive at the University of California, Berkeley.	City of Sunnyvale working with experienced HABS documentation personnel	City of Sunnyvale Community Development Department	**Prior to Construction:** Conduct historic documentation prior **During Construction:** N/A **After Construction:** N/A	
Impact Cultural-1 **MM Cultural-3: Documentation of the Sunnyvale Office Center**	City of Sunnyvale working with experienced	City of Sunnyvale Community	**Prior to Construction:** Conduct historic documentation prior	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Documentation of the Sunnyvale Office Center using the Historic American Buildings Survey (HABS) guidelines for the Outline Format Report and HABS photography of representative views of the interior and exterior shall be prepared. The documentation shall be prepared by a person with experience in preparing HABS documentation and one who meets the Secretary of the Interior's Historic Preservation Professional Qualifications for Architectural History. Copies of the outline report (both a hard copy and as a pdf) should be provided to local repositories (such as the Sunnyvale Library and the Sunnyvale Historical Society) and the Environmental Design Archive at the University of California, Berkeley.	HABS documentation personnel	Development Department	**During Construction:** N/A **After Construction:** N/A	
Impact Cultural-1 **MM Cultural-4: Archival of the Historical Plans** Digital (pdf) copies of the historical plans of the Sunnyvale Civic Center Historic District's buildings (City Hall, City Hall Annex, Sunnyvale Library, and Sunnyvale Office Center) and landscapes on file with the City shall be provided to local repositories (such as the Sunnyvale Library and the Sunnyvale Historical Society) and the Environmental Design Archive at the University of California, Berkeley.	City of Sunnyvale	City of Sunnyvale Community Development Department	**Prior to Construction:** Archive the Historical Plans **During Construction:** N/A **After Construction:** N/A	
Impact Cultural-2 **MM Cultural-5: Cultural Resources Sensitivity Training and Inadvertent Discovery** A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a	Contractor working with professional archaeologist	City of Sunnyvale Community Development Department	**Prior to Construction:** Conduct sensitivity training **During Construction:** Halt ground disturbing activities if a cultural resource is uncovered **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
potentially significant historic and/or prehistoric archaeological resource. [a] In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA) and/or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area. If the resource meets the criteria for either a historical or unique archaeological resource, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA) and/or (2) a unique archaeological resource as defined by CEQA. If the resource meets the criteria for either a historical or unique archaeological resource, work shall remain halted within 50 feet of the area of the find and the qualified cultural resource specialist shall consult with City staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the City.				
Impact Cultural-3	Contractor working with	City of Sunnyvale Community	**Prior to Construction:** Conduct sensitivity training	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
MM Cultural-6: Paleontological Resources Sensitivity Training and Inadvertent Discovery A professional paleontologist shall provide sensitivity training to supervisory staff to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall be conducted as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (1995), to recognize fossil materials in the event that any are uncovered during construction. In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is "unique" [b] under CEQA, Appendix G, part V. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with City staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation-in-place is not feasible and avoidance is not possible, the fossils shall be recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.	professional paleontologist	Development Department	**During Construction:** Halt ground disturbing activities if a paleontological resource is uncovered **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Impact Cultural-4 **MM Cultural-7: Human Remains** If human remains are encountered during construction, ground disturbing work shall halt within 50 feet of any area where human remains, or suspected human remains, are encountered in compliance with California law (Health and Safety Code section 7050.5; PRC sections 5097.94, 5097.98, and 5097.99). The City shall contact the Medical Examiner at the county coroner's office. The Medical Examiner has two (2) working days to examine the remains after being notified by the City. When the remains are determined to be Native American, the Medical Examiner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall immediately notify the identified Most Likely Descendant (MLD), and the MLD has 48 hours, from the time that access to the project site is granted, to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the MLD does not make recommendations within 24 hours, the area of the property must be secured from further disturbance. If there are disputes between the landowner and the MLD, the NAHC shall mediate the dispute to attempt to find a resolution. If mediation fails to provide measures acceptable to the landowner, the landowner or his/her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.	Contractor	City of Sunnyvale Community Development Department	**Prior to Construction:** N/A **During Construction:** Halt ground disturbing activities if human remains are encountered **After Construction:** N/A	
Impact Cultural-5 **MM Cultural-8: Tribal Cultural Resources Inadvertent Discovery** The training and Alert Sheet identified under MM Cultural-1 shall encompass tribal cultural resources as well. In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources	Contractor working with cultural resources specialist	City of Sunnyvale Community Development Department	**Prior to Construction:** N/A **During Construction:** Halt ground disturbing activities if a tribal cultural resource is encountered **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
specialist/archaeologist shall evaluate the resource and determine whether it is of special importance to a California Native American Tribe. If the resource is determined to not be of importance to the tribe, work may commence in the area. If the resource meets the criteria for an important tribal resource, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is an important resource to the local Native American Tribe. If the resource is important to the tribe, work shall remain halted within 50 feet of the area of the find and the qualified cultural resource specialist shall consult with City staff regarding methods to ensure that no substantial adverse change would occur to the significance of the tribal cultural resource pursuant to PRC section 21084.3. Methods may include the following: • Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on tribal cultural resources. • Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following: - Protecting the cultural character and integrity of the resource - Protecting the traditional use of the resource - Protecting the confidentiality of the resource • Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places. • Protecting the resource. • Work in the area may commence upon completion of treatment, as approved by the City.				
Impact Culutral-6: Implement Mitigation Measure MM Cultural-5, MM Cultural-6, and MM Cultural-8 (see above)				

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Geology and Soils				
Impact Geology-3 **MM Geology-1: Geotechnical Investigation** The City shall conduct a design-level geotechnical investigation for the project site to identify and evaluate soil conditions and geologic hazards. Where potential soil or geologic hazards are found to occur, appropriate engineering design and construction measures shall be identified in the geotechnical investigation. These recommendations shall be incorporated into the design of Phase I and of future phases, as deemed appropriate by a California licensed Geotechnical Engineer or Certified Engineering Geologist. Appropriate design measures shall include, but are not limited to removal of unstable materials and replacement with stable materials, and avoidance of highly unstable areas, if found.	City of Sunnyvale	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Conduct geotechnical investigation; Incorporate recommendations into final designs **During Construction:** N/A **After Construction:** N/A	
Impact Geology-4: Implement Mitigation Measure MM Geology-1 (see above)				
Hazards and Hazardous Materials				
Impact Hazards-1 **MM Hazards-1: Hazardous Building Materials Survey, Notification, Removal, and Disposal** **Survey:** A lead-based paint and asbestos survey shall be performed prior to any construction and demolition activities. • The asbestos survey shall adhere to Asbestos Hazard Emergency Response Act (AHERA) sampling protocol and should be performed prior to any activities that may disturb suspect asbestos-containing materials (ACMs). • The lead-based paint survey will require the project sponsor to collect and test material samples or perform an X-Ray Fluorescence (XRF) survey to determine the presence of lead-based paint. **Asbestos Notification:** USEPA and BAAQMD shall be notified using the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) Notification Form, at least ten working	City of Sunnyvale and Contractor	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Conduct lead-based paint and asbestos survey; Post asbestos notification at least ten working days prior to construction **During Construction:** Dispose of contaminated waste in compliance with regulations **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
days prior to the start of building demolition and demolition shall comply with 40 CFR 61, Subpart M (National Emission Standard for Asbestos), under the Health & Safety Code § 39658(b)(l). **Removal and Disposal**: Disposal of contaminated waste shall comply with applicable regulations. • Removal and disposal of asbestos-containing materials shall comply with BAAQMD Regulation 11 Hazardous Pollutants, Rule 2 Asbestos Demolition, Renovation, and Manufacturing. • Disposal of building materials from structures built prior to 1978 shall comply with CalOSHA Lead Construction Standard, Title 8, California Code of Regulation 1532, which requires development and implementation of a lead compliance plan when materials that contain lead would be disturbed during construction.				
Impact Hazards-1 **MM Hazards-2: Soil Testing and UST Investigation** **Soil Testing** Soil that is intended to be imported, disturbed during grading or construction, disposed of, or removed from the project site shall be tested for hazardous contaminants (i.e., pesticides or petroleum hydrocarbons), with the test results compared to regulatory standards such as Federal (RCRATCLP) and State (Title 22-STLC, TTLC) hazardous waste criteria, and other applicable health-based screening levels established by the California Environmental Protection Agency prior to import, disposal, or removal. **UST Investigation** An investigation shall verify that the historical UST to the north of the existing City Hall (former Public Safety Building) was removed prior to any future excavation in this area. An investigation of potential subsurface impacts related to the historic gasoline service station and automobile repair facilities	City of Sunnyvale	City of Sunnyvale Community Development Department and Building Division	**Prior to Construction:** Conduct soil testing UST and investigation **During Construction:** N/A **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
formerly located on the southeast corner of the project site shall be conducted prior to any future excavation in this area.				
Impact Hazards-1 **MM Hazards-3: Soil Management Plan** A Soil Management Plan (SMP) shall be prepared for the project site following testing of soil, in accordance with MM Hazards-2. The City shall seek regulatory approval of the SMP if soil samples are found to exceed regulatory standards. The SMP shall include the following measures at a minimum: • **Management:** If project site soil is found to be contaminated, the soil shall either be properly disposed of based on the results of testing or encapsulated beneath an engineered cap of clean soil or concrete and/or asphalt for areas beneath new impervious surfaces (i.e., parking lots or garages). • **Import:** If a soil/fill source is found to be contaminated, a new soil/fill source shall be selected. • **Handling:** Handling of soil or earthen material that could be contaminated with pesticides shall be performed in accordance with all applicable federal, State, and local laws in order to protect worker health and minimize current or future exposure. • **Health and Safety:** Health and safety procedures shall be prepared and implemented in the event that contaminated soil, undocumented USTs, or other subsurface structures of environmental concern are encountered during construction.	City of Sunnyvale and Contractor	City of Sunnyvale Community Development Department	**Prior to Construction:** Prepare, review, and approve the Soil Management Plan **During Construction:** Implement Soil Management Plan **After Construction:** N/A	
Impact Hazards-2: Implement Mitigation Measure MM Hazards-1, MM Hazards-2, MM Hazards-3 (see above) and MM Hazards-4 **MM Hazards-4: Spill Prevention and Response** The City shall, at a minimum, implement best management practices that address the following procedures related to the use of hazardous materials during construction:	City of Sunnyvale and Contractor	City of Sunnyvale Building Division	**Prior to Construction:** N/A **During Construction:** Implement best management practices for Spill Prevention and Response	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
• Proper disposal or management of contaminated soils and materials (i.e., clean up materials) • Daily inspection of vehicles and equipment for leaks and spill containment procedures • Emergency response and reporting procedures to address hazardous material releases • Fuels and lubricating oils for vehicles and heavy equipment will not be stored or transferred within 100 feet of any storm drains • Emergency spill supplies and equipment shall be available to respond in a timely manner if an incident should occur • Response materials such as oil-absorbent material, tarps, and storage drums shall be available in the plan area at all times during management activities and shall be used as needed to contain and control any minor releases • The absorbent material shall be removed promptly and disposed of properly • Placement of as needed, minor amounts of fuel, lubricants, and hydraulic fluid for equipment operation in appropriate storage tanks on the bed of fueling vehicles • Use of secondary containment and spill rags when fueling • Discourage "topping-off" fuel tanks • Spill kits for all fuel trucks and fueling areas • All workers shall be trained on the specific procedures for hazardous materials and emergency response as an element of the required worker environmental training prior to working in the plan area.			**After Construction:** N/A	
Impact Hazards-3: Implement Mitigation Measure MM Hazards -1, MM Hazards -2, MM Hazards -3 and MM Hazards -4 (see above)				
Hydrology and Water Quality				
Impact Hydrology-1: Implement Mitigation Measure MM Hazards -2 and MM Hazards -3 (see above)				
Impact Hydrology-4 **MM Hydrology-1: Construction Stormwater Management**	Contractor	City of Sunnyvale Community	**Prior to Construction:** Install temporary detention basins, if	

<table>
<tr><th>Mitigation Measure</th><th>Implementation Responsibility</th><th>Monitoring Responsibility</th><th>Timing and Performance Standards</th><th>Compliance Verification</th></tr>
<tr><td>If construction occurs during the rainy season (i.e., November to April [c]), temporary detention basins shall be installed to ensure that stormwater flows from the project site into the stormwater collection system do not increase during construction.</td><td></td><td>Development Department</td><td>construction occurs during rainy season
During Construction: N/A
After Construction: N/A</td><td></td></tr>
<tr><td colspan="5">Impact Hydrology-5: Implement Mitigation Measure MM Hydrology-1 and MM Hazards-4 (see above)</td></tr>
<tr><td colspan="5">Impact Hydrology-11: Implement Mitigation Measure MM Hazards-2 and MM Hazards-3 (see above)</td></tr>
<tr><td colspan="5">Noise</td></tr>
<tr><td>Impact Noise-1
MM Noise-1: Noise Management Plan
The City shall prepare a Noise Management Plan that includes the following elements at a minimum:
• Best Management Practices. The plan shall identify noise best management practices to be implemented during construction, including but not limited to:
- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Construct solid plywood fences (minimum 8 feet in height) or erect noise control blanket barriers between on-site demolition/construction sites and receptors (e.g., residences and library) as defined below. Noise barriers shall also be installed around the perimeter of all staging areas to reduce noise impacts on receptors (e.g., residences, library, and Little Tree Montessori International School of Sunnyvale).
<table>
<tr><th rowspan="2">Receptor</th><th colspan="3">Distances within which Noise Blanket or Barrier is Required</th></tr>
<tr><th>Demolitions & Site Preparation</th><th>Foundation Construction</th><th>Building Construction & Finishing</th></tr>
<tr><td>Residence</td><td>80 feet</td><td>60 feet</td><td>N/A</td></tr>
</table>
</td><td>City of Sunnyvale working with acoustical consultant</td><td>City of Sunnyvale Community Development Department</td><td>Prior to Construction: Prepare Noise Management Plan
During Construction: Implement Noise Management Plan
After Construction: N/A</td><td></td></tr>
</table>

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification

Library	200 feet	140 feet	80 feet

- Position stationary noise-generating equipment as far as possible from receptors (preschool, residences and the library).

- **Construction Schedule.** The plan shall include a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent noise-sensitive land uses, including residences, Little Tree Montessori International School of Sunnyvale, and the Sunnyvale Library, so that construction activities can be scheduled to minimize noise disturbance during noise-sensitive periods (nighttime, preschool nap times, library events, etc.). The schedule shall identify noise-sensitive periods and define noise reduction techniques.
- **Community Liaison.** The plan shall designate a "Community Liaison" to ensure coordination between construction staff and neighbors to minimize disruptions due to construction noise and vibration.
- **Notices.** The plan shall identify receptors within 400 feet of the project that will receive construction notices. Construction notice details are identified below:
  - A notice with the name and phone number of the Community Liaison shall be posted on the fencing surrounding the construction work site on the project site.
  - Residents and schools shall be sent a notice at least 7 days prior to the start of construction.
  - Residences within 500 feet of nighttime construction shall receive additional notice 7 days prior to each occurrence of nighttime construction.
  - Notices shall include details regarding the construction schedule and the phone number for the Community Liaison, in addition to tips for reducing noise.
- **Noise Complaints.** The Community Liaison shall respond to any local complaints regarding construction noise and vibration. The Community Liaison shall determine the cause

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
of the noise or vibration complaint and implement reasonable measures to correct the problem. Reasonable measures could include the following: - Installation of temporary sound absorption barriers (i.e., sound walls, noise control blankets) - Use of mufflers on heavy equipment. - Locating of stationary noise sources (i.e., generators) as far as feasible from existing residences and Little Tree Montessori International School of Sunnyvale.				
Impact Noise-1 **MM Noise-2: Mechanical Equipment** A qualified acoustical consultant shall be retained to review the projected mechanical noise and design specific noise reduction techniques accordingly. Exterior mechanical equipment shall be selected and designed to not exceed 50 dBA at neighboring residential properties.	City of Sunnyvale working with acoustical consultant	City of Sunnyvale Community Development Department	**Prior to Construction:** Identify projected mechanical noise and design noise reduction techniques; Incorporate reduction techniques into designs **During Construction:** N/A **After Construction:** N/A	
Impact Noise-3: Implement Mitigation Measure MM Noise-2 (see above)				
Impact Noise-4: Implement Mitigation Measure MM Noise-2 (see above), MM Noise-3 and MM Noise-4 (see below) **MM Noise-3: Construction Impacts on the Library** The City shall post notices of project construction at the Sunnyvale Library at least 1 month prior to construction. Notices shall identify activities that would impact library noise levels and alert library users to the potential of vibration impacts that may occur as part of project construction. The City shall coordinate with library staff at least a week prior to conducting site preparation, demolition, construction, or staging activities within 200 feet of the library, and shall accommodate any special events or noise sensitivities expressed by library staff, as feasible.	City of Sunnyvale	City of Sunnyvale Community Development Department	**Prior to Construction:** Post notification at library 1 month prior to construction; Coordinate with library staff at least 1 week prior to construction **During Construction:** N/A **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
Impact Noise-4 **MM Noise-4: Noise at Schools** The City shall coordinate with administrators at the Little Tree Montessori International School of Sunnyvale to identify noise-sensitive periods (such as nap times) as required by MM Noise-1 and restrict construction activities that have the potential to generate noise levels over 73 dBA at the school (staging activity such as generator use or movement of materials with heavy equipment) within 59 feet of the school during these noise-sensitive periods.	City of Sunnyvale	City of Sunnyvale Community Development Department	**Prior to Construction:** Coordinate with Little Tree Montessori International School of Sunnyvale administrators to identify noise sensitive time periods **During Construction:** N/A **After Construction:** N/A	
Impact Noise-7: Implement Mitigation Measure MM Noise-1, MM Noise-3 and MM Noise-4 (see above)				
Traffic and Transportation				
Impact Traffice-1 **MM Traffic-1: Temporary Traffic Control Plan Measures** The following traffic control measures shall be incorporated into the Temporary Traffic Control plan prepared as required by the City: • **Road and Lane Closures** - Time road and lane closures to avoid peak (AM and PM) commuting hours. - Road closures along West Olive Avenue shall be prohibited during construction. Two lanes of traffic shall be retained at all times on West Olive Avenue. • **Construction Traffic and Safety** - Time construction worker commute and haul truck trips to avoid peak (AM and PM) commuting hours. - Construction traffic routes shall avoid the intersection of Mary Avenue/ West Olive Avenue. - Flaggers shall be posted to control the traffic into and out of the construction site. • **Notification**	City of Sunnyvale and Contractor	City of Sunnyvale Community Development Department and City Traffic Engineer	**Prior to Construction:** Prepare Temporary Traffic Control Plan **During Construction:** Implement measures identified in Temporary Traffic Control Plan **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
- The City shall notify local emergency personnel (i.e., fire departments, police departments, ambulance, and paramedic services), employees at the Civic Center Campus, and residents within 300 feet at least 7 days prior to road or lane closures. The notice shall include location(s), date(s), time(s), and duration of closure(s), and a contact number for the construction contractor.				
Impact Traffic-4: Implement Mitigation Measure MM Traffic-1 (see above) and MM Traffic-2 **MM Traffic-2: Maintain Line of Sight** The City shall evaluate site entrance and underground parking garage driveway designs according to the Caltrans Highway Design Manual and modify designs to ensure that appropriate recommendations for maintaining sight distance are incorporated. The City shall trim trees and other landscaping to ensure that line of sight for drivers entering and exiting site access points and underground parking garages is maintained. If entrances to and exits from the project site or underground parking garages are moved during the final design of each phase, they shall only be moved into positions that allow for adequate lines of sight for ingress and egress.	City of Sunnyvale	City of Sunnyvale Community Development Department working with Sunnyvale Department of Public Safety	**Prior to Construction:** Evaluate driveway designs according to the Caltrans Highway Design Manual and modify, as appropriate **During Construction:** Modify landscaping to ensure safe entering and exiting sites access points are maintained after construction **After Construction:** N/A	
Impact Traffic-5: Implement Mitigation Measure MM Traffic-1 (see above)				
Impact Traffic-6: Implement Mitigation Measure MM Traffic-1 (see above) and MM Traffic-3 **MM Traffic-3: Public Transit, Bicycle, and Pedestrian Facilities** The following measures shall be implemented during construction: • The City shall coordinate with Santa Clara Valley Transportation Agency to re-locate bus stops and/or re-route affected transit services via parallel streets during construction when affected transit service is subject to delays resulting from partial or full street closure. • The City shall post signs at the affected bus stops on West Olive Avenue. The signs will be posted at least 2 weeks in advance of lane closures and shall indicate when the bus	City of Sunnyvale	City of Sunnyvale Community Development Department and City Traffic Engineer	**Prior to Construction:** Coordinate with the Santa Clara Valley Transportation Agency; Post signs at bus stops and pedestrian intersections **During Construction:** N/A **After Construction:** N/A	

Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Timing and Performance Standards	Compliance Verification
stops along West Olive Avenue would be unavailable and where the nearest bus stop for Route 54 is located. • The City shall post signs at pedestrian intersections at least 2 weeks in advance of construction that are anticipated to be affected by detours. These signs shall state the date range of construction and shall indicate the route of pedestrian detours during construction. • Warning signs shall be posted on sidewalks where construction limits pedestrian access and to identify which side of the street can be safely accessed at intersections prior to construction zones. • The City or its construction contractors shall use "share the road" signs within the construction zones where partial closures would occur and provide clear signs using the bicycle symbol to guide bicyclists to detour routes.				
Impact Traffic-7: Implement Mitigation Measure MM Traffic-1 (see above)				

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APPENDIX A

Heritage Preservation Commission Meeting Transcript

HERITAGE PRESERVATION COMMISION MEETING

Date/Time:	May 2, 2018 – 7:00 pm
Location:	West Conference Room, Sunnyvale City Hall
Project:	Sunnyvale Civic Center Modernization Master Plan Draft Program Environmental Impact Report (DEIR)
Subject:	**Public Comments on the Draft Program EIR**

Summary

On May 2, 2018, City of Sunnyvale Associate Planner Momoko Ishijima presented the Civic Center Modernization Master Plan Project DEIR in the Heritage Preservation Commission meeting. The purpose of the meeting is to solicit public comments on the DEIR. Several commissioners provided comments regarding the project. Commissioners' comments included topics such as Heritage Preservation Commission's responsibility in preserving Cultural and Tribal Cultural Resources, project area's eligibility as a Historic District, and preserving redwood trees at the Civic Center campus as Heritage Resources. The following section is the transcript of the relevant portion of the meeting audio recording from 11:35 to 44:45 minutes when commissioners and community members provided public comments.

Transcript

Chair Dietrich: Just a couple of comments that I had when I was reading this presentation, especially in the executive summary. I was really impressed with the organization, the detail, and they didn't leave everything out as far as dealing with heritage preservation. I was thoroughly impressed, and the staff did an awesome job.

Commissioner Larsen: Cultural and Tribal, Cultural Resources, not on our list of things normally does it touch the commission?

Momoko Ishijima: Yes, it is part of your purview.

Chair Dietrich: Doesn't it mostly contain artifacts or something like that because there is building?

Noren Caliva-Lepe: Yes, yes, that is still within the purview of heritage preservation commission.

Chair Dietrich: Thank you.

Noren Caliva-Lepe: There was a perception of a potential tribal resource.

Commissioner Mouritsen: Do they think we might find such thing there?

Noren Caliva-Lepe: I will let Momo or Ward respond to that based on analysis.

Momoko Ishijima: I mean, so this civic center has been exiting here since the 50s, I believe. And Prior to that I am sure it is part of the orchard that was in the area. Part of the project the civic center modernization includes these underground parking, so they will be excavating down further, there are some basement actually in the city hall right now. But as part of the excavation, they will have to do with the parking construction, and probably for the demolition of this building. They may, maybe have a chance to encounter some types of, you know prehistoric elements or bones or something like that. They are mitigations that have been listed to that gives us direction to staff of what they have to do. They typically would have to halt construction, and bring an archeologist specializes in that and take a look at what the findings are. And then they would have to follow the quick procedure in recovering that whatever that it is that we have found.

Commissioner Larsen: We have reasons to believe that there ever Indian in the immediate area?

Momoko Ishijima: I think that is closer to the Bay. There some, if I can find it. I think there some discussion about what type of native tribes were in the area. And, I will try to look for it now.

Noren Caliva-Lepe: There have been resources that have been found along the El Camino Corridor as well. So, they could really be anywhere. Momo is correct in general that it is along major waterways.

Commissioner Larsen: Is there anything found in the building that were constructed?

Momoko Ishijima: I am not aware of that. It is on page, section 4.4 page 4. There is a whole sort of section talks about the prehistory and the tribal sort of, what types of tribes were in this area. And then, I think we have the mitigation measure which is.

Commissioner Mouritsen: Would there be representatives of the Indian tribe serving?

Momoko Ishijima: So, if there were some remains that were found. I think the archaeologist would take a look at it. And if it found to be related to any type of native tribes. They would probably call a contact the local tribe. They always have a contact person that will come and exam it.

Commissioner Mouritsen: It is up to us or the project to notify. They are not gonna have an Indian standing on the edge of the hole?

Momoko Ishijima: I don't believe so. Although, I think there was a project in Fremont recently, the residential project that is part of the excavation. They found a burial site. And, they did have to contact the I think the Ohlone tribe. And they were trying to find ways to mitigate that with the developer. I think they wanted to move it, but the tribes have some other ideas. They are in negotiation right now. Since this is a city project, we would be responsible for that.

Noren Caliva-Lepe: And, also it is part of CEQA which we had training in last hearing during the preparation process. We are required to reach out to different agencies and entities, including some tribal entities as well. So, during that time, the tribes can give us comments. and If they proceed that this area was an active place for their tribes. They could ask for certain things.

Momoko Ishijima: They have been notified for this EIR. I think mitigation measure, this is impact 4.4.6 talks about if we find any historic resources. I am sorry not this one. Cultural impact number 2 talks about if there is an archeological resource found. And then there are some mitigation measures identified for that. And number 3 impact number 3 is related to paleontological resources or any unique geologic feature, and we have some mitigations related to that. The next one is for human remains, including those in term outside of formal cemeteries, so that I have a mitigation measure for that.

Ward Hill: I would like to add that archaeologists are required to actually contact the local native American representatives to get their input whether or not they think there is anything on the site. So, they asked them, and then they do a records search. I am not an archaeologist, but I want to through this in. You say that there has been certain level of work done already to find out any likelihood. They did the records search at the information center. I am not sure if any commissioner knows about the information center, up the Sonoma State, so anything was discovered within a wider radius of the project area, that would be noticed in the archeological report, if somebody has been recorded by an archeologist. Because archeologist is required by law to, if they found something with archeological interests to file a report about it at the informational center. There are 16 of them in California.

Commissioner Mouritsen: So, the likelihood of finding something in this site would be low?

Ward Hill: Well, given that it does look like, based on that literature search they have done and contact with the native American representatives, it didn't sound like anything came off.

Momoko Ishijima: Nothing has come off so far.

Commissioner Mouritsen: Let me ask, are they happy that we are digging around, the Indians?

Momoko Ishijima: Well, so, we have been in contact with them since before drafting this EIR. We have been in touch with them through the scoping process for the EIR, which means that we reached out to the public, and the public agencies to sort of inquire what areas we need to study or include in the EIR process, the EIR analysis, and we reached out to the medievalistic of tribes that we reached out to, and we did not receive comments. I think if there were some interests we would have heard at that time. It is part of the release of the EIR. We also reached out to them to let them know that the document is available. And, we have not yet heard from anybody.

Commissioner Mouritsen: Maybe they haven't had time to read it.

Momoko Ishijima: Quite possible.

Commissioner Valenzuela: In term of cutoff date is July the 7th?

Momoko Ishijima: July 7th, 5 o'clock.

Commissioner Michitaka: June 7th.

Momoko Ishijima: Oh, June 7th.

Commissioner Valenzuela: If you find any remains or whatever that is even after that the anything encounters those thing, then?

Momoko Ishijima: But, we wouldn't encounter anything until the project was approved and the construction began, so the June 7 cutoff date is just comment on the document itself.

Chair Dietrich: So any comment on the document as far as we are concerned is the cultural and tribal resources is mostly what we are mostly focusing on our agency, is that correct?

Momoko Ishijima: Yes, in particular, we would want it to get some input related to the laws of the City Hall building itself, because that these three buildings, the City Hall building, the City Hall annex, and the Sunnyvale office complex that across the street. Those three buildings have been identified as eligible with California registers. So the laws of those three buildings landscaping entire site center complex setting they kind of eligible as a historic district.

Commissioner Larsen: Never so designated?

Momoko Ishijima: Never designated as such, that is correct.

Commissioner Larsen: Are we gonna be very sad if these buildings go away?

Ward Hill: In glossy term, yes.

Momoko Ishijima: That area is under your purview.

Vice Chair Hopkins: So can we make a comment like making sure they are documented, so pictures taken or something?

Ward Hill: Yes, that is in the document. We recommend that very, you could add to that too. We have two pages on documenting. Just give you some ideas, you want to look at the guidelines the national park service guidelines back in 1930s, the building survey to document the building, and created more recently the American historic landscape survey, which is specifically for documenting landscape. And, national park service has the website that describes the documentation process for that.

Commissioner Larsen: Beside those, I just recall the oak trees things outside of the common area, there are some oak trees are over 50-year-old something, and we discussed a little bit.

Commissioner Larsen: Redwood trees behind some of these buildings that I think are already scheduled to be protected when this proposal is put together.

Noren Caliva-Lepe: They are considered protected trees by the definition in our code. We protect tree as the tree of a certain size, protected trees if you want to remove it there is a process. It is not guaranteed for approval, but staff has to, ultimately city council has to determine if it is worthy saving a protected tree. When this came before you, a few months back, there was no, I believe there was no promise to or action to save the trees. It was just a statement of the considered protected trees, because it meets our definition based on size.

Momoko Ishijima: I think there are some interests from some residents that they wanted some of the redwood trees between the annex and City Hall to be designated as heritage trees, but I don't believe there was any recommendation or action taken either by the heritage preservation commission or city council for that. But having said that the plan as it is, has been evaluated with this EIR. They are retaining almost 90% of the trees on site. The redwood trees oppose to Matilda.

Commissioner Larsen: Not necessary the redwood trees between those buildings?

Momoko Ishijima: We don't know yet. I don't know for sure.

Commissioner Michitaka: (Inaudible)

Momoko Ishijima: They are protected as definition in our code, but not all of the trees will be preserved as part of the construction, that might be a better way to explain it. Maybe Mr. Ward can speak to this too, but the eligibility of the Civic Center as it is now for historic district it is really not just the building, but it is the landscape setting around the buildings and those include the trees, right?

Ward Hill: Right, actually just let you know that this was a report that I worked on with an landscape landscape architect, but the city only wants 1% of the area. I can't answer a lot of detailed questions about landscape, we basically split this 50/50, she goes through and does a very detailed description of the landscape. She got a lot of background about the landscape architect who is very important as a part of the history landscape architecture.

Momoko Ishijima: The trees exist on the campus right now, I am sure it is a result of that.

Ward Hill: So, I was gonna say that, actually all the time I have spent here I think the landscape is actually sometimes I felt more important than the buildings. It is actually the combination of two. The architect and the landscape architect worked very closely on this. You know for a long period of time, and the landscape architect has a lot of input regarding exactly how the City Hall was placed on the site. He didn't design it, but he, the architect and landscape architect, worked a lot about how the building would be placed and how the landscape around it would work. It was very thoroughly thought out. It wasn't something we just put some landscape in here. You know it was a real plan.

Commissioner Larsen: I have to say that when the subject of those trees came up that night the meeting, I believed there was going to be an effort to save those trees. That is not what I am hearing here. The fact that they have been designated as what protected not historic.

Noren Caliva-Lepe: Just to clarify, per the analysis that has been done, the analysis found that the area can qualified as a district, and it includes the landscaping and the buildings, so the conclusion that it could eligible as a district including those trees. That is one thing. The second thing is now that we found it is eligible for listing. We start talking about the merits of the project. Should the project be approved? Should trees be removed? that is what we have to make those judgement calls, about land use apart from CEQA. What we are asking of you tonight is, do you think the analysis that is in the report is completed, have we studied potential prehistoric resources enough or there is analysis missing. Cause I think the conversion about should we preserve trees, or can they go that comes at a later phase of when we talk about the merits of the project. Does that make sense?

Chair Dietrich: Would that go hand in hand?

Chair Dietrich: What would be our opportunities to protect those trees if we don't do it now?

Noren Caliva-Lepe: That is certainly a comment that you can forward as an individual on the project. As a commission, as your task to determine if the analysis is completed in terms of, like I said, have we studied the potential for prehistoric resources adequately? That is really what is happening tonight. If you have, if you feel strongly that those trees should be preserved, then you can route those comments to staff and that can go in the record of how the merits of the project are.

Commissioner Larsen: So, I have a question. So, staff considered that in the report here, consider using this area as a district verse taking it out. It looks like in the Phase I and Phase II that this area would be coming out, and this City Hall will be built there. Is that right?

Momoko Ishijima: The designation of the Civic Center as a historic district wasn't analyzed until we did this EIR basically. So, when the master plan project ultimately goes to city council for adoption. There will be this document as well as the Final EIR document. And, that is when the city council will have to weigh the laws of this Civic Center as historic district would that outweigh the merits of this project, and one of the things that discussed in this project is an alternative. If the laws of this Civic Center as historic district outweigh the merits of the project, one of the alternatives is to not have this Civic Center. So that is an alternative that the city council could vote on.

Chair Dietrich: However, all of the math and all of the architecture, all these tons of hours have gone into it. When I started with the initial group that decided to put things on a piece of paper, they would decide how we wanted it to be looked. At that time, we didn't go into the looks of the buildings and it wasn't even brought up this could be considered as heritage district. And, it looks like this is almost a done deal. no matter what we say it could be just on paper. Does that make sense? So, we could make our comments, and it sounds like it would be good to have this new City Hall. It looks like this place needs a new City Hall. It needs a new library, which is great. I am wondering if they could have a carryout where they would keep the trees, take pictures of the buildings and trees. And, that is what sounds likes they are going to do. Do we leave the comment, or do we give it to city council?

Momoko Ishijima: This is a form for you to submit your comment.

Chair Dietrich: Those are my comments.

Commissioner Larsen: I agree with you. I think the train has already left the station. We have seen that much documentation of study has been done. I think it is a done deal. It is closed. It is going to happen in that spot. I think it is a good thing. I don't think it is a great loss to knock down some of these old buildings. I think it is a tragedy to tear up the years old trees.

Noren Caliva-Lepe: So appropriate comment could be if you are feeling the commission that there should be greater effort to look at tree preservation as a historic resource, that is an appropriated comment to move forward.

Commissioner Larsen: That was what we thought we are gonna do months ago, when this came up.

Noren Caliva-Lepe: So yeah, you can do that now. Now that we are in the comment period of the Draft EIR. That is the appropriate time to do that. Before that we didn't have the analysis. I know that there is a perception that the ball has been rolling, and that is a done deal, but procedurally what happen is we start master planning the campus and then we kick off this year plus long analysis period when we started collecting facts, such as historic evaluation, we know today is different than we we knew months ago. So, but now that we are here today, and we ask for your comments, and information before you. And, you can react based on facts, that is an appropriate time.

Commissioner Larsen: I think it is better to say act. I am acting on the facts that I think we could look into the trees as a preservation.

Commissioner Mouritsen: I am curious it is true, who determine that we need to do this, the City Hall suggested needs a new library. We need a new City Hall. What said so that the current buildings are not working?

Momoko Ishijima: Yeah, I think this is been an ongoing project that our current city manager has been working when he was an assistant to the manager with the city council, since probably in 2016. And, there are a number of meetings that he has had with the council where they outweighed the merits of the or the cost of renovating the buildings, and then expand it. Or, I think you know they have to look at everything that the earthquake retrofit in. You know other things. We have to evacuate the building about six months ago, a year ago because of there was an old electrical panel that has been there since the time the building caught on fire. We all have to evacuate. It took them, basically we were able to get PG&E to replace it overnight. So there are a lot of things going on of this building. If you have gone to the (inaudible) a lot of things are falling apart. They estimated how much it would cost to repair and remodel the building, how much it would cost to construct a new building. And, I think I recall the cost to build the new building was more cost effective in a long run too if they compare trying to maintain the older building or to have a newer building that is more energy efficient that uses you know

modern technology. And, I think some of the technology they want to install the new City Hall is they want to have LEED Platinum, so that they would have solar panels and renewable energy you know and better energy distribution within the City Hall. So that have been all contemplated. And I think it has been involved with the community outreach during various different meetings to get input. The council members have been part of a core team leading up to this part.

Commissioner Mouritsen: I am converted.

Commissioner Larsen: And just to let you know as well. The city library, the Sunnyvale library is the only library in our county that has not been updated or remodeled. It had some modeling, but it is so small that they can't add more, but they have to get rid of the old thing before they could add on. So, it is this has been going on, I have been assisting different mayors and their campaigns and whatever.

Commissioner: (Inaudible)

Vice Chair Hopkins: I was just thinking goodness look at all this great information here. Wouldn't it be wonderful if the information was gathered and put together in a plaque, but somehow represent something would be taking down? I am saying it is out there, something like to consider it is important enough we could consider that is a comment.

Chair Dietrich: Please do put in a comment, I am just amazed with the study and what you done with this documentation, just amazing.

Ward Hill: One of things you can think about is doing some kind of exhibit in the new City Hall. Cause I worked on a project recently the Holy Cross cemetery where they are putting senior housing for veterans in part of the cemetery in Coma. And, they are demolishing some of the historic, the Holy Cross was an early cemetery in Coma. They are doing an exhibit in one of the new veteran houses. we have some real good photographs here from the historic society and show the aerial view of the Civic Center first built.

Noren Caliva-Lepe: Does any commissioner have any further comment?

Momoko Ishijima: I just want to repeat that we have until June 7th if you like to take the time to read the document and provide additional comments please do so. And the I can provide you with my email address.

Resident: If the trees go away, is there a place is someone gonna buy those trees and make something out of it? I am throwing this out. The tree goes away, but you keep the wood. You build a drum or something.

Momoko Ishijima: With the other projects that had old barn and other structures with some interests where people have wanted to reclaim that type of the wood. We make opportunities to get them in touch with the developer that was demolishing those properties. I have not come across a request to reclaim, reuse the wood.

Noren Caliva-Lepe: I have not either. And, maybe perhaps beyond the EIR, but I think that is a great follow up question we can certainly get you in touch with the city manager or anybody else who is managing the project. That is just a question or comment related to the overall construction activity.

Commissioner Larsen: I think it is a good idea to have the historic wood from this site used in some visible in buildings, the panel walls or something like that.

Momoko Ishijima: So, in the biological resource section of this document, which is probably not part of your package. We can forward you. The analysis studied that all the trees on the property, and the impacts of its loss. So, you can take a look or I can forward you the link. I will definitely note that the consideration of coming up with a creative way to use some of the wood that is removed from the site.

Commissioner Larsen: I suggest you make conference table. It is redwood and looks well. It could be terrific and historic.

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

- CalEEMod Outputs – Existing Conditions
- CalEEMod Outputs – Construction
- CalEEMod Outputs – Construction (Mitigated)
- CalEEMod Outputs – Operation
- Screen3 Outputs

Sunnyvale City Hall Baseline

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	35.50	1000sqft	0.81	35,500.00	0
Government (Civic Center)	60.70	1000sqft	1.39	60,700.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Sunnyvale City Hall Baseline - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Op Year 2017, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - City Hall, City Hall Annex, South City Hall Annex 60,700 sf; Office Complex 35,550

Construction Phase - N/A

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Revised trip rates in accordance with Kimley Horn

Energy Use -

Solid Waste - City Hall: Assumes approximately 202 cy of waste a month, 250 lbs per cy, total of 303.2 tons/year, Office Center: Assumes approximately 84 cy o waste a week, 250 lbs per cy, total of 125.3tons/year,

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - Two diesel generators, 75 kW (101 hp) and 150hp (201 hp), operates 50 hours a year each

Sunnyvale City Hall Baseline - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	33.02	125.30
tblSolidWaste	SolidWasteGenerationRate	345.99	303.20
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	101.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	29.00
tblVehicleTrips	WD_TR	27.92	29.00

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					
1958	0.2229				0.0552	0.0000	0.0552	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1959	0.8918				1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.8918**				**0.0552**	**0.0000**	**0.0552**	**0.0185**	**0.0000**	**0.0185**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
1958	0.2229				0.0552	0.0000	0.0552	0.0185	0.0000	0.0185	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1959	0.8918				1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.8918**				**0.0552**	**0.0000**	**0.0552**	**0.0185**	**0.0000**	**0.0185**	**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	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**

Sunnyvale City Hall Baseline - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
4	10-1-1958	12-31-1958	0.1592	0.1592
5	1-1-1959	3-31-1959	0.9555	0.9555
		Highest	0.9555	0.9555

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	0.4873	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003
Energy	8.4900e-003	0.0772	0.0648	4.6000e-004		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	84.0370	84.0370	1.6100e-003	1.5400e-003	84.5364
Mobile	0.7519	3.2395	8.2628	0.0206	1.5502	0.0314	1.5816	0.4164	0.0297	0.4461	0.0000	1,878.5305	1,878.5305	0.0893	0.0000	1,880.7636
Stationary	0.0124	0.0346	0.0361	6.0000e-005		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	5.7500	5.7500	8.1000e-004	0.0000	5.7702
Waste						0.0000	0.0000		0.0000	0.0000	86.9816	0.0000	86.9816	5.1405	0.0000	215.4933
Water						0.0000	0.0000		0.0000	0.0000	5.8274	0.0000	5.8274	0.5985	0.0141	25.0021
Total	**1.2601**	**3.3513**	**8.3646**	**0.0211**	**1.5502**	**0.0391**	**1.5893**	**0.4164**	**0.0374**	**0.4538**	**92.8090**	**1,968.3193**	**2,061.1283**	**5.8308**	**0.0157**	**2,211.5674**

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	0.4873	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003
Energy	8.4900e-003	0.0772	0.0648	4.6000e-004		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	84.0370	84.0370	1.6100e-003	1.5400e-003	84.5364
Mobile	0.7519	3.2395	8.2628	0.0206	1.5502	0.0314	1.5816	0.4164	0.0297	0.4461	0.0000	1,878.5305	1,878.5305	0.0893	0.0000	1,880.7636
Stationary	0.0124	0.0346	0.0361	6.0000e-005		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	5.7500	5.7500	8.1000e-004	0.0000	5.7702
Waste						0.0000	0.0000		0.0000	0.0000	86.9816	0.0000	86.9816	5.1405	0.0000	215.4933
Water						0.0000	0.0000		0.0000	0.0000	5.8274	0.0000	5.8274	0.5985	0.0141	25.0021
Total	**1.2601**	**3.3513**	**8.3646**	**0.0211**	**1.5502**	**0.0391**	**1.5893**	**0.4164**	**0.0374**	**0.4538**	**92.8090**	**1,968.3193**	**2,061.1283**	**5.8308**	**0.0157**	**2,211.5674**

	ROG	NOx	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

Sunnyvale City Hall Baseline - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/1958	1/28/1958	5	20	
2	Site Preparation	Site Preparation	1/29/1958	1/31/1958	5	3	
3	Grading	Grading	2/1/1958	2/10/1958	5	6	
4	Building Construction	Building Construction	2/11/1958	12/15/1958	5	220	
5	Paving	Paving	12/16/1958	12/29/1958	5	10	
6	Architectural Coating	Architectural Coating	12/30/1958	1/12/1959	5	10	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 144,300; Non-Residential Outdoor: 48,100; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale City Hall Baseline - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	31.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					8.9000e-004	0.0000	8.9000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**8.9000e-004**	**0.0000**	**8.9000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					8.9000e-004	0.0000	8.9000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**8.9000e-004**	**0.0000**	**8.9000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1958

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					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.3900e-003**	**0.0000**	**2.3900e-003**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1958

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.3900e-003**	**0.0000**	**2.3900e-003**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1958

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

3.4 Grading - 1958

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					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0197**	**0.0000**	**0.0197**	**0.0101**	**0.0000**	**0.0101**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0197**	**0.0000**	**0.0197**	**0.0101**	**0.0000**	**0.0101**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1958

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
Vendor					8.1200e-003	0.0000	8.1200e-003	1.9900e-003	0.0000	1.9900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0233	0.0000	0.0233	5.7100e-003	0.0000	5.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0314**	**0.0000**	**0.0314**	**7.7000e-003**	**0.0000**	**7.7000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1958

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
Vendor					8.1200e-003	0.0000	8.1200e-003	1.9900e-003	0.0000	1.9900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0233	0.0000	0.0233	5.7100e-003	0.0000	5.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0314**	**0.0000**	**0.0314**	**7.7000e-003**	**0.0000**	**7.7000e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1958

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					
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.1000e-004**	**0.0000**	**5.1000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.6 Paving - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.1000e-004**	**0.0000**	**5.1000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1958

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	0.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2229**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2229**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1958

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1959

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	0.8918					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.8918**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1959

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8918					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.8918**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1959

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.7519	3.2395	8.2628	0.0206	1.5502	0.0314	1.5816	0.4164	0.0297	0.4461	0.0000	1,878.5305	1,878.5305	0.0893	0.0000	1,880.7636
Unmitigated	0.7519	3.2395	8.2628	0.0206	1.5502	0.0314	1.5816	0.4164	0.0297	0.4461	0.0000	1,878.5305	1,878.5305	0.0893	0.0000	1,880.7636

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	1,029.50	0.00	0.00	1,757,322	1,757,322
Government (Civic Center)	1,760.30	0.00	0.00	2,403,610	2,403,610
Total	2,789.80	0.00	0.00	4,160,932	4,160,932

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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.564510	0.044231	0.194244	0.118629	0.020348	0.005374	0.016447	0.023176	0.002417	0.002831	0.006034	0.000863	0.000894
Government (Civic Center)	0.564510	0.044231	0.194244	0.118629	0.020348	0.005374	0.016447	0.023176	0.002417	0.002831	0.006034	0.000863	0.000894

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	8.4900e-003	0.0772	0.0648	4.6000e-004		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	84.0370	84.0370	1.6100e-003	1.5400e-003	84.5364
NaturalGas Unmitigated	8.4900e-003	0.0772	0.0648	4.6000e-004		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	84.0370	84.0370	1.6100e-003	1.5400e-003	84.5364

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					
General Office Building	581135	3.1300e-003	0.0285	0.0239	1.7000e-004		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	31.0116	31.0116	5.9000e-004	5.7000e-004	31.1959
Government (Civic Center)	993659	5.3600e-003	0.0487	0.0409	2.9000e-004		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	53.0254	53.0254	1.0200e-003	9.7000e-004	53.3405
Total		**8.4900e-003**	**0.0772**	**0.0649**	**4.6000e-004**		**5.8700e-003**	**5.8700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**84.0370**	**84.0370**	**1.6100e-003**	**1.5400e-003**	**84.5364**

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					
General Office Building	581135	3.1300e-003	0.0285	0.0239	1.7000e-004		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	31.0116	31.0116	5.9000e-004	5.7000e-004	31.1959
Government (Civic Center)	993659	5.3600e-003	0.0487	0.0409	2.9000e-004		3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003	0.0000	53.0254	53.0254	1.0200e-003	9.7000e-004	53.3405
Total		**8.4900e-003**	**0.0772**	**0.0649**	**4.6000e-004**		**5.8700e-003**	**5.8700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**84.0370**	**84.0370**	**1.6100e-003**	**1.5400e-003**	**84.5364**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	632965	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.08228e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	632965	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.08228e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.4873	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003
Unmitigated	0.4873	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003

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	0.1115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003
Total	**0.4873**	**1.0000e-005**	**9.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7200e-003**	**1.7200e-003**	**0.0000**	**0.0000**	**1.8400e-003**

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	0.1115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3757					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7200e-003	1.7200e-003	0.0000	0.0000	1.8400e-003
Total	**0.4873**	**1.0000e-005**	**9.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7200e-003**	**1.7200e-003**	**0.0000**	**0.0000**	**1.8400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.8274	0.5985	0.0141	25.0021
Unmitigated	5.8274	0.5985	0.0141	25.0021

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.30955 / 3.86714	2.0017	0.2056	4.8500e-003	8.5883
Government (Civic Center)	12.0586 / 7.39078	3.8257	0.3929	9.2800e-003	16.4138
Total		**5.8274**	**0.5985**	**0.0141**	**25.0021**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	6.30955 / 3.86714	2.0017	0.2056	4.8500e-003	8.5883
Government (Civic Center)	12.0586 / 7.39078	3.8257	0.3929	9.2800e-003	16.4138
Total		**5.8274**	**0.5985**	**0.0141**	**25.0021**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	86.9816	5.1405	0.0000	215.4933
Unmitigated	86.9816	5.1405	0.0000	215.4933

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	125.3	25.4348	1.5032	0.0000	63.0136
Government (Civic Center)	303.2	61.5469	3.6373	0.0000	152.4797
Total		**86.9816**	**5.1405**	**0.0000**	**215.4933**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	125.3	25.4348	1.5032	0.0000	63.0136
Government (Civic Center)	303.2	61.5469	3.6373	0.0000	152.4797
Total		**86.9816**	**5.1405**	**0.0000**	**215.4933**

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
Emergency Generator	1	0	50	101	0.73	Diesel
Emergency Generator	1	0	50	201	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	4.1400e-003	0.0116	0.0150	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9230	1.9230	2.7000e-004	0.0000	1.9298
Emergency Generator - Diesel (175 - 300 HP)	8.2500e-003	0.0231	0.0210	4.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	3.8270	3.8270	5.4000e-004	0.0000	3.8404
Total	**0.0124**	**0.0346**	**0.0361**	**6.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.8200e-003**	**1.8200e-003**	**0.0000**	**5.7500**	**5.7500**	**8.1000e-004**	**0.0000**	**5.7702**

11.0 Vegetation

Sunnyvale Library Baseline

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	60.90	1000sqft	1.40	60,900.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Op Year 2017, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - Library 60,900 sf

Construction Phase - N/A

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - Revised trip rates per Kimley Horn

Energy Use -

Solid Waste - Library: Assumes approximately 1,158 cy of waste a year, 250 lbs per cy, total of 144.75 tons/year

Construction Off-road Equipment Mitigation -

Energy Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - 50 kw (67 hp) generator, diesel fuel, operates 50 hours a year each

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	56.08	144.75
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	67.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	46.55	20.00
tblVehicleTrips	SU_TR	25.49	10.97
tblVehicleTrips	WD_TR	56.24	24.17

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					
1960	0.7057				0.0397	0.0000	0.0397	0.0139	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.7057**				**0.0397**	**0.0000**	**0.0397**	**0.0139**	**0.0000**	**0.0139**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
1960	0.7057				0.0397	0.0000	0.0397	0.0139	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.7057**				**0.0397**	**0.0000**	**0.0397**	**0.0139**	**0.0000**	**0.0139**	**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	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**

Sunnyvale Library Baseline - San Francisco Bay Area Air Basin, Annual

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	0.3085	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Energy	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407
Mobile	0.4664	1.9019	4.7656	0.0112	0.8340	0.0173	0.8513	0.2240	0.0163	0.2404	0.0000	1,027.2489	1,027.2489	0.0518	0.0000	1,028.5428
Stationary	2.7500e-003	8.9600e-003	9.9700e-003	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.2757	1.2757	1.8000e-004	0.0000	1.2801
Waste						0.0000	0.0000		0.0000	0.0000	29.3829	0.0000	29.3829	1.7365	0.0000	72.7950
Water						0.0000	0.0000		0.0000	0.0000	0.6045	0.0000	0.6045	0.0621	1.4700e-003	2.5937
Total	**0.7863**	**1.9896**	**4.8423**	**0.0117**	**0.8340**	**0.0237**	**0.8577**	**0.2240**	**0.0227**	**0.2467**	**29.9875**	**1,114.2569**	**1,144.2443**	**1.8522**	**3.0400e-003**	**1,191.4535**

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	0.3085	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Energy	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407
Mobile	0.4664	1.9019	4.7656	0.0112	0.8340	0.0173	0.8513	0.2240	0.0163	0.2404	0.0000	1,027.2489	1,027.2489	0.0518	0.0000	1,028.5428
Stationary	2.7500e-003	8.9600e-003	9.9700e-003	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.2757	1.2757	1.8000e-004	0.0000	1.2801
Waste						0.0000	0.0000		0.0000	0.0000	29.3829	0.0000	29.3829	1.7365	0.0000	72.7950
Water						0.0000	0.0000		0.0000	0.0000	0.6045	0.0000	0.6045	0.0621	1.4700e-003	2.5937
Total	**0.7863**	**1.9896**	**4.8423**	**0.0117**	**0.8340**	**0.0237**	**0.8577**	**0.2240**	**0.0227**	**0.2467**	**29.9875**	**1,114.2569**	**1,144.2443**	**1.8522**	**3.0400e-003**	**1,191.4535**

	ROG	NOx	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

Sunnyvale Library Baseline - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/1960	1/28/1960	5	20	
2	Site Preparation	Site Preparation	1/29/1960	2/1/1960	5	2	
3	Grading	Grading	2/2/1960	2/5/1960	5	4	
4	Building Construction	Building Construction	2/6/1960	11/11/1960	5	200	
5	Paving	Paving	11/12/1960	11/25/1960	5	10	
6	Architectural Coating	Architectural Coating	11/26/1960	12/9/1960	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 91,350; Non-Residential Outdoor: 30,450; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Library Baseline - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	26.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	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 - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					8.9000e-004	0.0000	8.9000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**8.9000e-004**	**0.0000**	**8.9000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					8.9000e-004	0.0000	8.9000e-004	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**8.9000e-004**	**0.0000**	**8.9000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1960

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.8000e-003**	**0.0000**	**5.8000e-003**	**2.9500e-003**	**0.0000**	**2.9500e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.8000e-003**	**0.0000**	**5.8000e-003**	**2.9500e-003**	**0.0000**	**2.9500e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1960

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**9.8300e-003**	**0.0000**	**9.8300e-003**	**5.0500e-003**	**0.0000**	**5.0500e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1960

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
Vendor					0.0000	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-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**9.8300e-003**	**0.0000**	**9.8300e-003**	**5.0500e-003**	**0.0000**	**5.0500e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1960

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
Vendor					0.0000	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-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1960

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
Vendor					4.6100e-003	0.0000	4.6100e-003	1.1300e-003	0.0000	1.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0178	0.0000	0.0178	4.3600e-003	0.0000	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0224**	**0.0000**	**0.0224**	**5.4900e-003**	**0.0000**	**5.4900e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1960

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
Vendor					4.6100e-003	0.0000	4.6100e-003	1.1300e-003	0.0000	1.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0178	0.0000	0.0178	4.3600e-003	0.0000	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0224**	**0.0000**	**0.0224**	**5.4900e-003**	**0.0000**	**5.4900e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1960

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					
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.4000e-004	0.0000	4.4000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.6 Paving - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.4000e-004	0.0000	4.4000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1960

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	0.7057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.7057**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.7000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7057					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.7057**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1960

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**1.7000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.4664	1.9019	4.7656	0.0112	0.8340	0.0173	0.8513	0.2240	0.0163	0.2404	0.0000	1,027.2489	1,027.2489	0.0518	0.0000	1,028.5428
Unmitigated	0.4664	1.9019	4.7656	0.0112	0.8340	0.0173	0.8513	0.2240	0.0163	0.2404	0.0000	1,027.2489	1,027.2489	0.0518	0.0000	1,028.5428

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	1,471.95	1,218.00	668.07	2,238,624	2,238,624
Total	1,471.95	1,218.00	668.07	2,238,624	2,238,624

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
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.564510	0.044231	0.194244	0.118629	0.020348	0.005374	0.016447	0.023176	0.002417	0.002831	0.006034	0.000863	0.000894

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407
NaturalGas Unmitigated	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407

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					
Library	1.60654e+006	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407
Total		**8.6600e-003**	**0.0788**	**0.0662**	**4.7000e-004**		**5.9900e-003**	**5.9900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**85.7312**	**85.7312**	**1.6400e-003**	**1.5700e-003**	**86.2407**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Library	1.60654e+006	8.6600e-003	0.0788	0.0662	4.7000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	85.7312	85.7312	1.6400e-003	1.5700e-003	86.2407
Total		**8.6600e-003**	**0.0788**	**0.0662**	**4.7000e-004**		**5.9900e-003**	**5.9900e-003**		**5.9900e-003**	**5.9900e-003**	**0.0000**	**85.7312**	**85.7312**	**1.6400e-003**	**1.5700e-003**	**86.2407**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	503034	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	503034	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.3085	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.3085	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003

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	0.0706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2378					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Total	**0.3085**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0900e-003**	**1.0900e-003**	**0.0000**	**0.0000**	**1.1600e-003**

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	0.0706					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2378					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003
Total	**0.3085**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0900e-003**	**1.0900e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6045	0.0621	1.4700e-003	2.5937
Unmitigated	0.6045	0.0621	1.4700e-003	2.5937

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.90549 / 2.98039	0.6045	0.0621	1.4700e-003	2.5937
Total		**0.6045**	**0.0621**	**1.4700e-003**	**2.5937**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.90549 / 2.98039	0.6045	0.0621	1.4700e-003	2.5937
Total		**0.6045**	**0.0621**	**1.4700e-003**	**2.5937**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	29.3829	1.7365	0.0000	72.7950
Unmitigated	29.3829	1.7365	0.0000	72.7950

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	144.75	29.3829	1.7365	0.0000	72.7950
Total		**29.3829**	**1.7365**	**0.0000**	**72.7950**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	144.75	29.3829	1.7365	0.0000	72.7950
Total		**29.3829**	**1.7365**	**0.0000**	**72.7950**

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
Emergency Generator	1	0	50	67	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (50 - 75 HP)	2.7500e-003	8.9600e-003	9.9700e-003	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.2757	1.2757	1.8000e-004	0.0000	1.2801
Total	**2.7500e-003**	**8.9600e-003**	**9.9700e-003**	**1.0000e-005**		**4.0000e-004**	**4.0000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**1.2757**	**1.2757**	**1.8000e-004**	**0.0000**	**1.2801**

11.0 Vegetation

Sunnyvale Public Safety Headquarters Baseline

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	41.00	1000sqft	0.94	41,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2017
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Op Year 2017, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - Public Safety Headquarters 41,000 sf, a use more similar to police station is not available, Government Civic Center is used as a proxy

Construction Phase - N/A

Vehicle Trips - Revised trip rates per Kimley Horn

Energy Use -

Solid Waste - Assumes approximately 90.35 cy of waste a month, 250 lbs per cy, total of 135.5 tons/year

Construction Off-road Equipment Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - two permanent generators (230 kw [308 hp] each), two portable generators (150 kw [201 hp] each), diesel fuel, operates 50 hours a year each

Sunnyvale Public Safety Headquarters Baseline - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblSolidWaste	SolidWasteGenerationRate	233.70	135.50
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	308.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	201.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	ST_TR	0.00	15.46
tblVehicleTrips	WD_TR	27.92	15.46

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					
1985	0.4751				7.8600e-003	0.0000	7.8600e-003	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.4751**				**7.8600e-003**	**0.0000**	**7.8600e-003**	**2.1200e-003**	**0.0000**	**2.1200e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
1985	0.4751				7.8600e-003	0.0000	7.8600e-003	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.4751**				**7.8600e-003**	**0.0000**	**7.8600e-003**	**2.1200e-003**	**0.0000**	**2.1200e-003**	**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	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**

Sunnyvale Public Safety Headquarters Baseline - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	4-1-1985	6-30-1985	0.4751	0.4751
		Highest	0.4751	0.4751

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	0.2077	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004
Energy	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
Mobile	0.1991	0.8380	2.1216	5.1700e-003	0.3869	7.9000e-003	0.3949	0.1039	7.4700e-003	0.1114	0.0000	471.9595	471.9595	0.0230	0.0000	472.5339
Stationary	0.0418	0.1167	0.1065	2.0000e-004		6.1400e-003	6.1400e-003		6.1400e-003	6.1400e-003	0.0000	19.3826	19.3826	2.7200e-003	0.0000	19.4505
Waste						0.0000	0.0000		0.0000	0.0000	27.5053	0.0000	27.5053	1.6255	0.0000	68.1432
Water						0.0000	0.0000		0.0000	0.0000	2.5841	0.0000	2.5841	0.2654	6.2700e-003	11.0867
Total	**0.4522**	**0.9876**	**2.2561**	**5.5700e-003**	**0.3869**	**0.0165**	**0.4035**	**0.1039**	**0.0161**	**0.1201**	**30.0893**	**527.1590**	**557.2483**	**1.9173**	**6.9300e-003**	**607.2441**

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	0.2077	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004
Energy	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
Mobile	0.1991	0.8380	2.1216	5.1700e-003	0.3869	7.9000e-003	0.3949	0.1039	7.4700e-003	0.1114	0.0000	471.9595	471.9595	0.0230	0.0000	472.5339
Stationary	0.0418	0.1167	0.1065	2.0000e-004		6.1400e-003	6.1400e-003		6.1400e-003	6.1400e-003	0.0000	19.3826	19.3826	2.7200e-003	0.0000	19.4505
Waste						0.0000	0.0000		0.0000	0.0000	27.5053	0.0000	27.5053	1.6255	0.0000	68.1432
Water						0.0000	0.0000		0.0000	0.0000	2.5841	0.0000	2.5841	0.2654	6.2700e-003	11.0867
Total	**0.4522**	**0.9876**	**2.2561**	**5.5700e-003**	**0.3869**	**0.0165**	**0.4035**	**0.1039**	**0.0161**	**0.1201**	**30.0893**	**527.1590**	**557.2483**	**1.9173**	**6.9300e-003**	**607.2441**

	ROG	NOx	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

Sunnyvale Public Safety Headquarters Baseline - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/1985	1/14/1985	5	10	
2	Site Preparation	Site Preparation	1/15/1985	1/15/1985	5	1	
3	Grading	Grading	1/16/1985	1/17/1985	5	2	
4	Building Construction	Building Construction	1/18/1985	6/6/1985	5	100	
5	Paving	Paving	6/7/1985	6/13/1985	5	5	
6	Architectural Coating	Architectural Coating	6/14/1985	6/20/1985	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 61,500; Non-Residential Outdoor: 20,500; Striped Parking Area: 0 (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	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	13.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					3.4000e-004	0.0000	3.4000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**3.4000e-004**	**0.0000**	**3.4000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					3.4000e-004	0.0000	3.4000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**3.4000e-004**	**0.0000**	**3.4000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1985

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.7000e-004**	**0.0000**	**2.7000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1985

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**2.7000e-004**	**0.0000**	**2.7000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 1985

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

3.4 Grading - 1985

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**7.5000e-004**	**0.0000**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**7.5000e-004**	**0.0000**	**7.5000e-004**	**4.1000e-004**	**0.0000**	**4.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1985

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
Vendor					1.6100e-003	0.0000	1.6100e-003	4.0000e-004	0.0000	4.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.4400e-003	0.0000	4.4400e-003	1.0900e-003	0.0000	1.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**6.0500e-003**	**0.0000**	**6.0500e-003**	**1.4900e-003**	**0.0000**	**1.4900e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 1985

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
Vendor					1.6100e-003	0.0000	1.6100e-003	4.0000e-004	0.0000	4.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					4.4400e-003	0.0000	4.4400e-003	1.0900e-003	0.0000	1.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**6.0500e-003**	**0.0000**	**6.0500e-003**	**1.4900e-003**	**0.0000**	**1.4900e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1985

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					
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.6 Paving - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1985

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	0.4751					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.4751**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4751					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.4751**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 1985

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
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**5.0000e-005**	**0.0000**	**5.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.1991	0.8380	2.1216	5.1700e-003	0.3869	7.9000e-003	0.3949	0.1039	7.4700e-003	0.1114	0.0000	471.9595	471.9595	0.0230	0.0000	472.5339
Unmitigated	0.1991	0.8380	2.1216	5.1700e-003	0.3869	7.9000e-003	0.3949	0.1039	7.4700e-003	0.1114	0.0000	471.9595	471.9595	0.0230	0.0000	472.5339

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	633.86	633.86	0.00	1,038,609	1,038,609
Total	633.86	633.86	0.00	1,038,609	1,038,609

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
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.564510	0.044231	0.194244	0.118629	0.020348	0.005374	0.016447	0.023176	0.002417	0.002831	0.006034	0.000863	0.000894

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
NaturalGas Unmitigated	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290

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					
Government (Civic Center)	671170	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
Total		**3.6200e-003**	**0.0329**	**0.0276**	**2.0000e-004**		**2.5000e-003**	**2.5000e-003**		**2.5000e-003**	**2.5000e-003**	**0.0000**	**35.8162**	**35.8162**	**6.9000e-004**	**6.6000e-004**	**36.0290**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	671170	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003	0.0000	35.8162	35.8162	6.9000e-004	6.6000e-004	36.0290
Total		**3.6200e-003**	**0.0329**	**0.0276**	**2.0000e-004**		**2.5000e-003**	**2.5000e-003**		**2.5000e-003**	**2.5000e-003**	**0.0000**	**35.8162**	**35.8162**	**6.9000e-004**	**6.6000e-004**	**36.0290**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	731030	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	731030	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.2077	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004
Unmitigated	0.2077	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004

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	0.0475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1601					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004
Total	**0.2077**	**0.0000**	**3.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.3000e-004**	**7.3000e-004**	**0.0000**	**0.0000**	**7.8000e-004**

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	0.0475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1601					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.3000e-004	7.3000e-004	0.0000	0.0000	7.8000e-004
Total	**0.2077**	**0.0000**	**3.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.3000e-004**	**7.3000e-004**	**0.0000**	**0.0000**	**7.8000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.5841	0.2654	6.2700e-003	11.0867
Unmitigated	2.5841	0.2654	6.2700e-003	11.0867

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	8.14505 / 4.99213	2.5841	0.2654	6.2700e-003	11.0867
Total		**2.5841**	**0.2654**	**6.2700e-003**	**11.0867**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	8.14505 / 4.99213	2.5841	0.2654	6.2700e-003	11.0867
Total		**2.5841**	**0.2654**	**6.2700e-003**	**11.0867**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.5053	1.6255	0.0000	68.1432
Unmitigated	27.5053	1.6255	0.0000	68.1432

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	135.5	27.5053	1.6255	0.0000	68.1432
Total		**27.5053**	**1.6255**	**0.0000**	**68.1432**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	135.5	27.5053	1.6255	0.0000	68.1432
Total		**27.5053**	**1.6255**	**0.0000**	**68.1432**

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
Emergency Generator	2	0	50	308	0.73	Diesel
Emergency Generator	2	0	50	201	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0165	0.0461	0.0421	8.0000e-005		2.4300e-003	2.4300e-003		2.4300e-003	2.4300e-003	0.0000	7.6540	7.6540	1.0700e-003	0.0000	7.6809
Emergency Generator - Diesel (300 - 600 HP)	0.0253	0.0706	0.0644	1.2000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	11.7286	11.7286	1.6400e-003	0.0000	11.7697
Total	**0.0418**	**0.1167**	**0.1065**	**2.0000e-004**		**6.1500e-003**	**6.1500e-003**		**6.1500e-003**	**6.1500e-003**	**0.0000**	**19.3826**	**19.3826**	**2.7100e-003**	**0.0000**	**19.4505**

11.0 Vegetation

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

- CalEEMod Outputs – Existing Conditions
- CalEEMod Outputs – Construction
- CalEEMod Outputs – Construction (Mitigated)
- CalEEMod Outputs – Operation
- Screen3 Outputs

Sunnyvale Phase I

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	109.00	1000sqft	2.50	109,000.00	0
Government Office Building	12.00	1000sqft	0.28	12,000.00	0
Enclosed Parking with Elevator	41.22	1000sqft	0.95	41,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Winter 2019/2020

Land Use - 109,000 sf city hall, 12,000 sf EOC, 41,216 sf underground garage

Construction Phase - Start Winter 2019/2020 for 18 months

Trips and VMT - Total Haul trips: Demolition 497; Grading 2,442; Construction 1,520 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - 96,250 sf

Grading - Export of 24,424 of soil from excavation, default acres graded

Vehicle Trips - Revised trip rates per Kimley Horn

Road Dust -

Energy Use -

Solid Waste - City Hall: approximately 74.7 cy of waste/week, 250 lbs/ cy, total of 485.2 tons/year, EOC: 26.44 cy/ week, total of 39.67 ton/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 1 595kW generator for City Hall; 1 110kW generator for EOC; same fuel as existing units (diesel), assumes 50 hours a year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	230.00	334.00
tblConstructionPhase	NumDays	8.00	40.00
tblConstructionPhase	PhaseEndDate	2/15/2021	7/1/2021
tblConstructionPhase	PhaseEndDate	12/25/2020	7/1/2021
tblConstructionPhase	PhaseEndDate	2/7/2020	3/23/2020
tblConstructionPhase	PhaseEndDate	1/20/2021	4/15/2020
tblConstructionPhase	PhaseStartDate	1/21/2021	5/16/2021
tblConstructionPhase	PhaseStartDate	2/8/2020	3/23/2020

tblConstructionPhase	PhaseStartDate	1/29/2020	1/28/2020
tblConstructionPhase	PhaseStartDate	12/26/2020	3/23/2020
tblGrading	MaterialExported	0.00	24,424.00
tblLandUse	LandUseSquareFeet	41,220.00	41,216.00
tblSolidWaste	SolidWasteGenerationRate	621.30	485.20
tblSolidWaste	SolidWasteGenerationRate	11.16	39.67
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	148.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	798.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	438.00	497.00
tblTripsAndVMT	HaulingTripNumber	3,053.00	2,442.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,520.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	0.00	15.46
tblVehicleTrips	WD_TR	27.92	29.00
tblVehicleTrips	WD_TR	68.93	15.46

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	0.3569	3.8349	2.7204	6.6900e-003	0.2852	0.1656	0.4508	0.1034	0.1550	0.2584	0.0000	604.4374	604.4374	0.1013	0.0000	606.9696
2021	1.5633	1.4303	1.2569	2.7900e-003	0.0526	0.0648	0.1174	0.0142	0.0610	0.0752	0.0000	248.3628	248.3628	0.0406	0.0000	249.3772
Maximum	**1.5633**	**3.8349**	**2.7204**	**6.6900e-003**	**0.2852**	**0.1656**	**0.4508**	**0.1034**	**0.1550**	**0.2584**	**0.0000**	**604.4374**	**604.4374**	**0.1013**	**0.0000**	**606.9696**

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	0.3569	3.8349	2.7204	6.6900e-003	0.1863	0.1656	0.3519	0.0623	0.1550	0.2173	0.0000	604.4370	604.4370	0.1013	0.0000	606.9692
2021	1.5633	1.4303	1.2569	2.7900e-003	0.0526	0.0648	0.1174	0.0142	0.0610	0.0752	0.0000	248.3626	248.3626	0.0406	0.0000	249.3770
Maximum	**1.5633**	**3.8349**	**2.7204**	**6.6900e-003**	**0.1863**	**0.1656**	**0.3519**	**0.0623**	**0.1550**	**0.2173**	**0.0000**	**604.4370**	**604.4370**	**0.1013**	**0.0000**	**606.9692**

	ROG	NOx	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**	**29.28**	**0.00**	**17.41**	**34.95**	**0.00**	**12.32**	**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	1.5288	1.5288
2	4-1-2020	6-30-2020	0.9197	0.9197
3	7-1-2020	9-30-2020	0.8588	0.8588
4	10-1-2020	12-31-2020	0.8625	0.8625
5	1-1-2021	3-31-2021	0.7658	0.7658
6	4-1-2021	6-30-2021	2.1697	2.1697
7	7-1-2021	9-30-2021	0.0389	0.0389
		Highest	2.1697	2.1697

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	0.0107	0.0971	0.0816	5.8000e-004		7.3800e-003	7.3800e-003		7.3800e-003	7.3800e-003	0.0000	803.5852	803.5852	0.0336	8.4700e-003	806.9478
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0388	0.1634	0.1055	1.9000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	18.0117	18.0117	2.5300e-003	0.0000	18.0748
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	52.8393	60.4654	0.7857	0.0190	85.7657
Total	**1.1816**	**2.4838**	**5.6189**	**0.0202**	**1.7077**	**0.0292**	**1.7369**	**0.4583**	**0.0281**	**0.4864**	**114.1700**	**2,657.1572**	**2,771.3272**	**7.1829**	**0.0275**	**2,959.0809**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	696.8968	696.8968	0.0296	7.1900e-003	699.7796
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0388	0.1634	0.1055	1.9000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	18.0117	18.0117	2.5300e-003	0.0000	18.0748
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	52.8393	60.4654	0.7857	0.0190	85.7657
Total	**1.1785**	**2.4558**	**5.5953**	**0.0200**	**1.7077**	**0.0270**	**1.7348**	**0.4583**	**0.0260**	**0.4843**	**114.1700**	**2,550.4688**	**2,664.6388**	**7.1789**	**0.0262**	**2,851.9127**

	ROG	NOx	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	**0.26**	**1.13**	**0.42**	**0.84**	**0.00**	**7.30**	**0.12**	**0.00**	**7.58**	**0.44**	**0.00**	**4.02**	**3.85**	**0.06**	**4.66**	**3.62**

3.0 Construction Detail

Construction Phase

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Grading	Grading	1/28/2020	3/23/2020	5	40	
3	Building Construction	Building Construction	3/23/2020	7/1/2021	5	334	
4	Paving	Paving	3/23/2020	4/15/2020	5	18	
5	Architectural Coating	Architectural Coating	5/16/2021	7/1/2021	5	34	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 181,500; Non-Residential Outdoor: 60,500; Striped Parking Area: 2,473 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	497.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	2,442.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	27.00	1,520.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					0.0474	0.0000	0.0474	7.1700e-003	0.0000	7.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0474**	**0.0166**	**0.0640**	**7.1700e-003**	**0.0154**	**0.0226**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.0213	0.0000	0.0213	3.2300e-003	0.0000	3.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0213**	**0.0166**	**0.0379**	**3.2300e-003**	**0.0154**	**0.0187**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.1324	0.0000	0.1324	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.5277	0.3211	5.9000e-004		0.0255	0.0255		0.0234	0.0234	0.0000	52.1175	52.1175	0.0169	0.0000	52.5389
Total	**0.0486**	**0.5277**	**0.3211**	**5.9000e-004**	**0.1324**	**0.0255**	**0.1579**	**0.0676**	**0.0234**	**0.0910**	**0.0000**	**52.1175**	**52.1175**	**0.0169**	**0.0000**	**52.5389**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

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					0.0596	0.0000	0.0596	0.0304	0.0000	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.5277	0.3211	5.9000e-004		0.0255	0.0255		0.0234	0.0234	0.0000	52.1174	52.1174	0.0169	0.0000	52.5388
Total	**0.0486**	**0.5277**	**0.3211**	**5.9000e-004**	**0.0596**	**0.0255**	**0.0851**	**0.0304**	**0.0234**	**0.0538**	**0.0000**	**52.1174**	**52.1174**	**0.0169**	**0.0000**	**52.5388**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

3.4 Building Construction - 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	0.2162	1.9570	1.7186	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2422	236.2422	0.0576	0.0000	237.6831
Total	**0.2162**	**1.9570**	**1.7186**	**2.7500e-003**		**0.1139**	**0.1139**		**0.1071**	**0.1071**	**0.0000**	**236.2422**	**236.2422**	**0.0576**	**0.0000**	**237.6831**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

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	0.2162	1.9570	1.7185	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2419	236.2419	0.0576	0.0000	237.6828
Total	**0.2162**	**1.9570**	**1.7185**	**2.7500e-003**		**0.1139**	**0.1139**		**0.1071**	**0.1071**	**0.0000**	**236.2419**	**236.2419**	**0.0576**	**0.0000**	**237.6828**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

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	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

3.5 Paving - 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	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

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	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

3.6 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	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4201**	**0.0260**	**0.0309**	**5.0000e-005**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4201**	**0.0260**	**0.0309**	**5.0000e-005**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

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	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Unmitigated	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	3,161.00	0.00	0.00	4,316,203	4,316,203
Government Office Building	185.52	185.52	0.00	272,695	272,695
Total	3,346.52	185.52	0.00	4,588,899	4,588,899

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government (Civic Center)	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government Office Building	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	621.7364	621.7364	0.0281	5.8200e-003	624.1726
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	697.8837	697.8837	0.0316	6.5300e-003	700.6183
NaturalGas Mitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1604	75.1604	1.4400e-003	1.3800e-003	75.6070
NaturalGas Unmitigated	0.0107	0.0971	0.0816	5.8000e-004		7.3800e-003	7.3800e-003		7.3800e-003	7.3800e-003	0.0000	105.7014	105.7014	2.0300e-003	1.9400e-003	106.3296

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					
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
Government (Civic Center)	1.78433e+006	9.6200e-003	0.0875	0.0735	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003	0.0000	95.2186	95.2186	1.8300e-003	1.7500e-003	95.7845
Government Office Building	196440	1.0600e-003	9.6300e-003	8.0900e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4828	10.4828	2.0000e-004	1.9000e-004	10.5451
Total		**0.0107**	**0.0971**	**0.0816**	**5.8000e-004**		**7.3800e-003**	**7.3800e-003**		**7.3800e-003**	**7.3800e-003**	**0.0000**	**105.7014**	**105.7014**	**2.0300e-003**	**1.9400e-003**	**106.3296**

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					
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
Government (Civic Center)	1.26877e+006	6.8400e-003	0.0622	0.0522	3.7000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	67.7065	67.7065	1.3000e-003	1.2400e-003	68.1088
Government Office Building	139681	7.5000e-004	6.8500e-003	5.7500e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4539	7.4539	1.4000e-004	1.4000e-004	7.4982
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1604**	**75.1604**	**1.4400e-003**	**1.3800e-003**	**75.6070**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	241526	70.2626	3.1800e-003	6.6000e-004	70.5379
Government (Civic Center)	1.94347e+006	565.3777	0.0256	5.2900e-003	567.5930
Government Office Building	213960	62.2434	2.8100e-003	5.8000e-004	62.4873
Total		**697.8837**	**0.0316**	**6.5300e-003**	**700.6183**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	194505	56.5837	2.5600e-003	5.3000e-004	56.8054
Government (Civic Center)	1.75017e+006	509.1434	0.0230	4.7600e-003	511.1384
Government Office Building	192531	56.0093	2.5300e-003	5.2000e-004	56.2288
Total		**621.7364**	**0.0281**	**5.8100e-003**	**624.1726**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Unmitigated	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	60.4654	0.7857	0.0190	85.7657
Unmitigated	60.4654	0.7857	0.0190	85.7657

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	54.4688	0.7078	0.0171	77.2600
Government Office Building	2.38392 / 1.46111	5.9966	0.0779	1.8800e-003	8.5057
Total		**60.4654**	**0.7857**	**0.0190**	**85.7657**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	54.4688	0.7078	0.0171	77.2600
Government Office Building	2.38392 / 1.46111	5.9966	0.0779	1.8800e-003	8.5057
Total		**60.4654**	**0.7857**	**0.0190**	**85.7657**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	106.5439	6.2966	0.0000	263.9579
Unmitigated	106.5439	6.2966	0.0000	263.9579

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

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
Emergency Generator	1	0	50	148	0.73	Diesel
Emergency Generator	1	0	50	798	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	6.0700e-003	0.0170	0.0220	3.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	2.8179	2.8179	4.0000e-004	0.0000	2.8278
Emergency Generator - Diesel (750 - 9999 HP)	0.0327	0.1464	0.0835	1.6000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	15.1938	15.1938	2.1300e-003	0.0000	15.2471
Total	**0.0388**	**0.1634**	**0.1055**	**1.9000e-004**		**5.7100e-003**	**5.7100e-003**		**5.7100e-003**	**5.7100e-003**	**0.0000**	**18.0117**	**18.0117**	**2.5300e-003**	**0.0000**	**18.0748**

11.0 Vegetation

Sunnyvale Phase II

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	120.00	1000sqft	2.75	120,000.00	0
Enclosed Parking with Elevator	48.76	1000sqft	1.12	48,755.00	0
Enclosed Parking with Elevator	38.02	1000sqft	0.87	38,016.00	0
Parking Lot	80.68	1000sqft	1.85	80,684.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Jan 1, 2023

Land Use - Library 120,000 sf, two underground parking structures 48,755 sf and 38,016 sf, aboveground parking lot 80,684

Construction Phase - Start Jan 1, 2023, 18 month duration

Trips and VMT - Total Haul trips: Demolition 315; Grading 5,142; Construction 1,507 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - Demolish 60,900 sf

Grading - spoils 51,420 cy, defaul acres

Energy Use -

Solid Waste - Library: approximately 190 cy of waste/week, 250 lbs/ cy, total of 285.2 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph offroad speed

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 1 872kW generator for Library; same fuel as existing units (diesel), assumes 50 hours a year

Vehicle Trips - Revised trip generation per Kimley Horn

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	230.00	332.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	16.00
tblGrading	MaterialExported	0.00	51,420.00
tblLandUse	LandUseSquareFeet	38,020.00	38,016.00
tblLandUse	LandUseSquareFeet	48,760.00	48,755.00
tblLandUse	LandUseSquareFeet	80,680.00	80,684.00
tblSolidWaste	SolidWasteGenerationRate	110.51	285.20
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	872.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	277.00	315.00
tblTripsAndVMT	HaulingTripNumber	6,428.00	5,142.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,507.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	46.55	20.00
tblVehicleTrips	SU_TR	25.49	10.95
tblVehicleTrips	WD_TR	56.24	24.17

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					
2023	0.2866	3.0203	2.7514	8.3500e-003	0.3539	0.1019	0.4557	0.1240	0.0954	0.2194	0.0000	763.3742	763.3742	0.1044	0.0000	765.9829
2024	1.5771	1.1940	1.3153	3.3700e-003	0.0967	0.0419	0.1387	0.0261	0.0395	0.0656	0.0000	303.0379	303.0379	0.0412	0.0000	304.0677
Maximum	**1.5771**	**3.0203**	**2.7514**	**8.3500e-003**	**0.3539**	**0.1019**	**0.4557**	**0.1240**	**0.0954**	**0.2194**	**0.0000**	**763.3742**	**763.3742**	**0.1044**	**0.0000**	**765.9829**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2866	3.0203	2.7514	8.3500e-003	0.2637	0.1019	0.3656	0.0842	0.0954	0.1796	0.0000	763.3738	763.3738	0.1044	0.0000	765.9825
2024	1.5771	1.1940	1.3153	3.3700e-003	0.0967	0.0419	0.1387	0.0261	0.0395	0.0656	0.0000	303.0378	303.0378	0.0412	0.0000	304.0675
Maximum	**1.5771**	**3.0203**	**2.7514**	**8.3500e-003**	**0.2637**	**0.1019**	**0.3656**	**0.0842**	**0.0954**	**0.1796**	**0.0000**	**763.3738**	**763.3738**	**0.1044**	**0.0000**	**765.9825**

	ROG	NOx	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**	**20.01**	**0.00**	**15.17**	**26.50**	**0.00**	**13.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2023	3-31-2023	1.2024	1.2024
2	4-1-2023	6-30-2023	0.7456	0.7456
3	7-1-2023	9-30-2023	0.6868	0.6868
4	10-1-2023	12-31-2023	0.6901	0.6901
5	1-1-2024	3-31-2024	0.6454	0.6454
6	4-1-2024	6-30-2024	2.1093	2.1093
7	7-1-2024	9-30-2024	0.0389	0.0389
		Highest	2.1093	2.1093

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	613.4172	613.4172	0.0233	7.2600e-003	616.1627
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275
Water						0.0000	0.0000		0.0000	0.0000	1.1912	11.8898	13.0810	0.1229	3.0000e-003	17.0471
Total	**1.1535**	**2.4668**	**4.9685**	**0.0188**	**1.6409**	**0.0318**	**1.6727**	**0.4403**	**0.0308**	**0.4711**	**59.0842**	**2,272.0109**	**2,331.0951**	**3.6284**	**0.0103**	**2,424.8617**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	532.9901	532.9901	0.0207	6.1700e-003	535.3464
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275
Water						0.0000	0.0000		0.0000	0.0000	1.1912	11.8898	13.0810	0.1229	3.0000e-003	17.0471
Total	**1.1498**	**2.4332**	**4.9402**	**0.0186**	**1.6409**	**0.0292**	**1.6701**	**0.4403**	**0.0282**	**0.4685**	**59.0842**	**2,191.5838**	**2,250.6680**	**3.6257**	**9.1700e-003**	**2,344.0454**

	ROG	NOx	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	**0.32**	**1.36**	**0.57**	**1.06**	**0.00**	**8.03**	**0.15**	**0.00**	**8.29**	**0.54**	**0.00**	**3.54**	**3.45**	**0.07**	**10.62**	**3.33**

3.0 Construction Detail

Construction Phase

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2023	1/28/2023	5	20	
2	Grading	Grading	1/28/2023	3/24/2023	5	40	
3	Building Construction	Building Construction	3/24/2023	7/1/2024	5	332	
4	Paving	Paving	3/24/2023	4/16/2023	5	16	
5	Architectural Coating	Architectural Coating	5/16/2024	7/1/2024	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 3.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area: 10,047 (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	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	315.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	5,142.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	1,507.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0300	0.0000	0.0300	4.5400e-003	0.0000	4.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0300**	**9.9800e-003**	**0.0400**	**4.5400e-003**	**9.2800e-003**	**0.0138**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187
Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

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					0.0135	0.0000	0.0135	2.0400e-003	0.0000	2.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0135**	**9.9800e-003**	**0.0235**	**2.0400e-003**	**9.2800e-003**	**0.0113**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187
Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1340	0.0000	0.1340	0.0678	0.0000	0.0678	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3587	0.2950	5.9000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	52.1212	52.1212	0.0169	0.0000	52.5427
Total	**0.0342**	**0.3587**	**0.2950**	**5.9000e-004**	**0.1340**	**0.0155**	**0.1495**	**0.0678**	**0.0143**	**0.0821**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5427**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

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					0.0603	0.0000	0.0603	0.0305	0.0000	0.0305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3587	0.2950	5.9000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	52.1212	52.1212	0.0169	0.0000	52.5426
Total	**0.0342**	**0.3587**	**0.2950**	**5.9000e-004**	**0.0603**	**0.0155**	**0.0758**	**0.0305**	**0.0143**	**0.0448**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5426**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1581	1.4457	1.6325	2.7100e-003		0.0703	0.0703		0.0662	0.0662	0.0000	232.9638	232.9638	0.0554	0.0000	234.3492
Total	**0.1581**	**1.4457**	**1.6325**	**2.7100e-003**		**0.0703**	**0.0703**		**0.0662**	**0.0662**	**0.0000**	**232.9638**	**232.9638**	**0.0554**	**0.0000**	**234.3492**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

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	0.1581	1.4457	1.6325	2.7100e-003		0.0703	0.0703		0.0662	0.0662	0.0000	232.9635	232.9635	0.0554	0.0000	234.3490
Total	**0.1581**	**1.4457**	**1.6325**	**2.7100e-003**		**0.0703**	**0.0703**		**0.0662**	**0.0662**	**0.0000**	**232.9635**	**232.9635**	**0.0554**	**0.0000**	**234.3490**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0964	0.8806	1.0589	1.7700e-003		0.0402	0.0402		0.0378	0.0378	0.0000	151.8612	151.8612	0.0359	0.0000	152.7589
Total	**0.0964**	**0.8806**	**1.0589**	**1.7700e-003**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**151.8612**	**151.8612**	**0.0359**	**0.0000**	**152.7589**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

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	0.0964	0.8806	1.0589	1.7700e-003		0.0402	0.0402		0.0378	0.0378	0.0000	151.8610	151.8610	0.0359	0.0000	152.7588
Total	**0.0964**	**0.8806**	**1.0589**	**1.7700e-003**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**151.8610**	**151.8610**	**0.0359**	**0.0000**	**152.7588**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0815	0.1167	1.8000e-004		4.0800e-003	4.0800e-003		3.7600e-003	3.7600e-003	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0815**	**0.1167**	**1.8000e-004**		**4.0800e-003**	**4.0800e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0815	0.1167	1.8000e-004		4.0800e-003	4.0800e-003		3.7600e-003	3.7600e-003	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0815**	**0.1167**	**1.8000e-004**		**4.0800e-003**	**4.0800e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0201	0.0299	5.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4517**	**0.0201**	**0.0299**	**5.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0201	0.0299	5.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4517**	**0.0201**	**0.0299**	**5.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

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	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Unmitigated	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	2,900.40	2,400.00	1314.00	4,410,502	4,410,502
Parking Lot	0.00	0.00	0.00		
Total	2,900.40	2,400.00	1,314.00	4,410,502	4,410,502

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Parking Lot	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
Enclosed Parking with Elevator	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Library	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	400.6643	400.6643	0.0181	3.7500e-003	402.2342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	444.4887	444.4887	0.0201	4.1600e-003	446.2304
NaturalGas Mitigated	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3258	132.3258	2.5400e-003	2.4300e-003	133.1122
NaturalGas Unmitigated	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.9285	168.9285	3.2400e-003	3.1000e-003	169.9323

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					
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
Library	3.1656e+006	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.9285	168.9285	3.2400e-003	3.1000e-003	169.9323
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0171**	**0.1552**	**0.1304**	**9.3000e-004**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**168.9285**	**168.9285**	**3.2400e-003**	**3.1000e-003**	**169.9323**

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					
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
Library	2.47969e+006	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3258	132.3258	2.5400e-003	2.4300e-003	133.1122
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0134**	**0.1216**	**0.1021**	**7.3000e-004**		**9.2400e-003**	**9.2400e-003**		**9.2400e-003**	**9.2400e-003**	**0.0000**	**132.3258**	**132.3258**	**2.5400e-003**	**2.4300e-003**	**133.1122**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	222774	64.8074	2.9300e-003	6.1000e-004	65.0614
Enclosed Parking with Elevator	285704	83.1147	3.7600e-003	7.8000e-004	83.4403
Library	991200	288.3515	0.0130	2.7000e-003	289.4813
Parking Lot	28239.4	8.2152	3.7000e-004	8.0000e-005	8.2474
Total		**444.4887**	**0.0201**	**4.1700e-003**	**446.2303**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	179432	52.1989	2.3600e-003	4.9000e-004	52.4034
Enclosed Parking with Elevator	230155	66.9546	3.0300e-003	6.3000e-004	67.2170
Library	939571	273.3320	0.0124	2.5600e-003	274.4030
Parking Lot	28114.4	8.1788	3.7000e-004	8.0000e-005	8.2109
Total		**400.6643**	**0.0181**	**3.7600e-003**	**402.2342**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Unmitigated	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.0810	0.1229	3.0000e-003	17.0471
Unmitigated	13.0810	0.1229	3.0000e-003	17.0471

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Library	3.75467 / 5.87269	13.0810	0.1229	3.0000e-003	17.0471
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0810**	**0.1229**	**3.0000e-003**	**17.0471**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Library	3.75467 / 5.87269	13.0810	0.1229	3.0000e-003	17.0471
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0810**	**0.1229**	**3.0000e-003**	**17.0471**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.8930	3.4214	0.0000	143.4275
Unmitigated	57.8930	3.4214	0.0000	143.4275

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

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
Emergency Generator	1	0	50	872	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Total	**0.0358**	**0.1600**	**0.0912**	**1.7000e-004**		**5.2600e-003**	**5.2600e-003**		**5.2600e-003**	**5.2600e-003**	**0.0000**	**16.6028**	**16.6028**	**2.3300e-003**	**0.0000**	**16.6610**

11.0 Vegetation

Sunnyvale Phase III

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	65.00	1000sqft	1.49	65,000.00	0
Enclosed Parking with Elevator	48.74	1000sqft	1.12	48,740.00	0
Parking Lot	12.20	1000sqft	0.28	12,197.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Jan 1, 2033

Land Use - Public Safety Headquarters 65,000 sf, a use more similar to police station is not available, Government Civic Center is used as a proxy, 48,740 sf underground garage, 12,197 sf secure aboveground lot

Construction Phase - Start date Jan 1, 2033 duration of 18 months

Trips and VMT - Total Haul trips: Demolition 274; Grading 2,888; Construction 816 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - 53,000 sf

Grading - Spoils 28,883 cy, default grading size

Vehicle Trips - Revised trip generation per Kimley Horn

Energy Use -

Solid Waste - Assumes approximately 1,719 cy of waste a year, 250 lbs per cy, total of 214.86 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 375 kw generator, diesel fuel, operates one day a year each

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	33.00
tblConstructionPhase	NumDays	220.00	332.00
tblConstructionPhase	NumDays	6.00	40.00
tblConstructionPhase	NumDays	10.00	17.00
tblGrading	MaterialExported	0.00	28,883.00
tblLandUse	LandUseSquareFeet	12,200.00	12,197.00
tblSolidWaste	SolidWasteGenerationRate	370.50	214.86
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	503.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	24.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	241.00	274.00
tblTripsAndVMT	HaulingTripNumber	3,610.00	2,888.00
tblTripsAndVMT	HaulingTripNumber	0.00	816.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	0.00	15.38
tblVehicleTrips	WD_TR	27.92	15.38

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					
2033	0.1913	1.4604	1.9619	5.8300e-003	0.2467	0.0228	0.2696	0.0955	0.0228	0.1183	0.0000	513.5659	513.5659	0.0221	0.0000	514.1180
2034	0.8644	0.6455	0.9799	2.4400e-003	0.0396	9.7000e-003	0.0493	0.0107	9.6900e-003	0.0204	0.0000	209.0652	209.0652	8.5600e-003	0.0000	209.2792
Maximum	**0.8644**	**1.4604**	**1.9619**	**5.8300e-003**	**0.2467**	**0.0228**	**0.2696**	**0.0955**	**0.0228**	**0.1183**	**0.0000**	**513.5659**	**513.5659**	**0.0221**	**0.0000**	**514.1180**

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					
2033	0.1913	1.4604	1.9619	5.8300e-003	0.1594	0.0228	0.1823	0.0562	0.0228	0.0790	0.0000	513.5655	513.5655	0.0221	0.0000	514.1177
2034	0.8644	0.6455	0.9799	2.4400e-003	0.0396	9.7000e-003	0.0493	0.0107	9.6900e-003	0.0204	0.0000	209.0650	209.0650	8.5600e-003	0.0000	209.2790
Maximum	**0.8644**	**1.4604**	**1.9619**	**5.8300e-003**	**0.1594**	**0.0228**	**0.1823**	**0.0562**	**0.0228**	**0.0790**	**0.0000**	**513.5655**	**513.5655**	**0.0221**	**0.0000**	**514.1177**

	ROG	NOx	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**	**30.50**	**0.00**	**27.38**	**37.04**	**0.00**	**28.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2033	3-31-2033	0.5245	0.5245
2	4-1-2033	6-30-2033	0.4004	0.4004
3	7-1-2033	9-30-2033	0.3634	0.3634
4	10-1-2033	12-31-2033	0.3643	0.3643
5	1-1-2034	3-31-2034	0.3558	0.3558
6	4-1-2034	6-30-2034	1.1293	1.1293
7	7-1-2034	9-30-2034	0.0421	0.0421
		Highest	1.1293	1.1293

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Energy	5.7400e-003	0.0522	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	478.2646	478.2646	0.0202	4.9800e-003	480.2535
Mobile	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Stationary	9.9100e-003	0.0277	0.0253	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	4.5970	4.5970	6.4000e-004	0.0000	4.6131
Waste						0.0000	0.0000		0.0000	0.0000	43.6146	0.0000	43.6146	2.5776	0.0000	108.0534
Water						0.0000	0.0000		0.0000	0.0000	4.0967	28.3848	32.4814	0.4221	0.0102	46.0725
Total	**0.4555**	**0.7071**	**1.1825**	**5.8200e-003**	**0.6092**	**8.3000e-003**	**0.6175**	**0.1634**	**8.1000e-003**	**0.1715**	**47.7113**	**1,017.1409**	**1,064.8522**	**3.0364**	**0.0152**	**1,145.2864**

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Energy	4.0800e-003	0.0371	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	412.0888	412.0888	0.0176	4.2200e-003	413.7852
Mobile	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Stationary	9.9100e-003	0.0277	0.0253	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	4.5970	4.5970	6.4000e-004	0.0000	4.6131
Waste						0.0000	0.0000		0.0000	0.0000	43.6146	0.0000	43.6146	2.5776	0.0000	108.0534
Water						0.0000	0.0000		0.0000	0.0000	4.0967	28.3848	32.4814	0.4221	0.0102	46.0725
Total	**0.4538**	**0.6921**	**1.1698**	**5.7300e-003**	**0.6092**	**7.1600e-003**	**0.6164**	**0.1634**	**6.9600e-003**	**0.1704**	**47.7113**	**950.9651**	**998.6764**	**3.0338**	**0.0144**	**1,078.8181**

	ROG	NOx	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	**0.36**	**2.13**	**1.07**	**1.55**	**0.00**	**13.73**	**0.18**	**0.00**	**14.07**	**0.66**	**0.00**	**6.51**	**6.21**	**0.08**	**5.01**	**5.80**

3.0 Construction Detail

Construction Phase

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2033	1/28/2033	5	20	
2	Grading	Grading	1/28/2033	3/24/2033	5	40	
3	Building Construction	Building Construction	3/24/2033	7/2/2034	5	332	
4	Paving	Paving	3/24/2033	4/16/2033	5	17	
5	Architectural Coating	Architectural Coating	5/17/2034	7/2/2034	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 97,500; Non-Residential Outdoor: 32,500; Striped Parking Area: 3,656 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	4.00	274.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	4.00	2,888.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	21.00	816.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2033

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					0.0261	0.0000	0.0261	3.9500e-003	0.0000	3.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0801	0.1297	2.8000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	24.1504	24.1504	1.0700e-003	0.0000	24.1771
Total	**0.0133**	**0.0801**	**0.1297**	**2.8000e-004**	**0.0261**	**2.1500e-003**	**0.0282**	**3.9500e-003**	**2.1500e-003**	**6.1000e-003**	**0.0000**	**24.1504**	**24.1504**	**1.0700e-003**	**0.0000**	**24.1771**

3.2 Demolition - 2033

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	6.4000e-004	0.0191	7.1900e-003	1.0000e-004	2.3200e-003	3.0000e-005	2.3500e-003	6.4000e-004	3.0000e-005	6.7000e-004	0.0000	9.3302	9.3302	4.5000e-004	0.0000	9.3414
Vendor	7.0000e-005	2.7600e-003	7.4000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9533	0.9533	4.0000e-005	0.0000	0.9542
Worker	1.9000e-004	1.0000e-004	1.3000e-003	1.0000e-005	1.0300e-003	0.0000	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.5955	0.5955	1.0000e-005	0.0000	0.5957
Total	**9.0000e-004**	**0.0220**	**9.2300e-003**	**1.2000e-004**	**3.6100e-003**	**3.0000e-005**	**3.6500e-003**	**9.9000e-004**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**10.8790**	**10.8790**	**5.0000e-004**	**0.0000**	**10.8913**

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					0.0117	0.0000	0.0117	1.7800e-003	0.0000	1.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0801	0.1297	2.8000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	24.1504	24.1504	1.0700e-003	0.0000	24.1771
Total	**0.0133**	**0.0801**	**0.1297**	**2.8000e-004**	**0.0117**	**2.1500e-003**	**0.0139**	**1.7800e-003**	**2.1500e-003**	**3.9300e-003**	**0.0000**	**24.1504**	**24.1504**	**1.0700e-003**	**0.0000**	**24.1771**

3.2 Demolition - 2033

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	6.4000e-004	0.0191	7.1900e-003	1.0000e-004	2.3200e-003	3.0000e-005	2.3500e-003	6.4000e-004	3.0000e-005	6.7000e-004	0.0000	9.3302	9.3302	4.5000e-004	0.0000	9.3414
Vendor	7.0000e-005	2.7600e-003	7.4000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9533	0.9533	4.0000e-005	0.0000	0.9542
Worker	1.9000e-004	1.0000e-004	1.3000e-003	1.0000e-005	1.0300e-003	0.0000	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.5955	0.5955	1.0000e-005	0.0000	0.5957
Total	**9.0000e-004**	**0.0220**	**9.2300e-003**	**1.2000e-004**	**3.6100e-003**	**3.0000e-005**	**3.6500e-003**	**9.9000e-004**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**10.8790**	**10.8790**	**5.0000e-004**	**0.0000**	**10.8913**

3.3 Grading - 2033

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					0.1327	0.0000	0.1327	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1182	0.1592	5.0000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	43.3321	43.3321	1.9000e-003	0.0000	43.3795
Total	**0.0235**	**0.1182**	**0.1592**	**5.0000e-004**	**0.1327**	**3.7200e-003**	**0.1364**	**0.0676**	**3.7200e-003**	**0.0713**	**0.0000**	**43.3321**	**43.3321**	**1.9000e-003**	**0.0000**	**43.3795**

3.3 Grading - 2033

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	6.7400e-003	0.2013	0.0758	1.0100e-003	0.0244	3.6000e-004	0.0248	6.7100e-003	3.5000e-004	7.0600e-003	0.0000	98.3415	98.3415	4.7400e-003	0.0000	98.4600
Vendor	1.5000e-004	5.5300e-003	1.4800e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9065	1.9065	7.0000e-005	0.0000	1.9083
Worker	2.9000e-004	1.5000e-004	2.0000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	0.9162	0.9162	1.0000e-005	0.0000	0.9164
Total	**7.1800e-003**	**0.2069**	**0.0793**	**1.0400e-003**	**0.0265**	**3.8000e-004**	**0.0269**	**7.2800e-003**	**3.7000e-004**	**7.6500e-003**	**0.0000**	**101.1642**	**101.1642**	**4.8200e-003**	**0.0000**	**101.2847**

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					0.0597	0.0000	0.0597	0.0304	0.0000	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1182	0.1592	5.0000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	43.3321	43.3321	1.9000e-003	0.0000	43.3795
Total	**0.0235**	**0.1182**	**0.1592**	**5.0000e-004**	**0.0597**	**3.7200e-003**	**0.0634**	**0.0304**	**3.7200e-003**	**0.0341**	**0.0000**	**43.3321**	**43.3321**	**1.9000e-003**	**0.0000**	**43.3795**

3.3 Grading - 2033

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	6.7400e-003	0.2013	0.0758	1.0100e-003	0.0244	3.6000e-004	0.0248	6.7100e-003	3.5000e-004	7.0600e-003	0.0000	98.3415	98.3415	4.7400e-003	0.0000	98.4600
Vendor	1.5000e-004	5.5300e-003	1.4800e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9065	1.9065	7.0000e-005	0.0000	1.9083
Worker	2.9000e-004	1.5000e-004	2.0000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	0.9162	0.9162	1.0000e-005	0.0000	0.9164
Total	**7.1800e-003**	**0.2069**	**0.0793**	**1.0400e-003**	**0.0265**	**3.8000e-004**	**0.0269**	**7.2800e-003**	**3.7000e-004**	**7.6500e-003**	**0.0000**	**101.1642**	**101.1642**	**4.8200e-003**	**0.0000**	**101.2847**

3.4 Building Construction - 2033

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	0.1249	0.7976	1.3778	2.7800e-003		0.0142	0.0142		0.0142	0.0142	0.0000	228.9660	228.9660	0.0101	0.0000	229.2182
Total	**0.1249**	**0.7976**	**1.3778**	**2.7800e-003**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**228.9660**	**228.9660**	**0.0101**	**0.0000**	**229.2182**

3.4 Building Construction - 2033

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	1.1600e-003	0.0346	0.0130	1.7000e-004	6.2200e-003	6.0000e-005	6.2800e-003	1.6500e-003	6.0000e-005	1.7100e-003	0.0000	16.9061	16.9061	8.1000e-004	0.0000	16.9265
Vendor	3.9000e-003	0.1465	0.0394	5.2000e-004	0.0139	1.6000e-004	0.0141	4.0200e-003	1.5000e-004	4.1700e-003	0.0000	50.5461	50.5461	1.9200e-003	0.0000	50.5941
Worker	6.7000e-003	3.4400e-003	0.0465	2.3000e-004	0.0367	1.3000e-004	0.0369	9.7700e-003	1.2000e-004	9.8900e-003	0.0000	21.2826	21.2826	2.3000e-004	0.0000	21.2884
Total	**0.0118**	**0.1845**	**0.0989**	**9.2000e-004**	**0.0568**	**3.5000e-004**	**0.0572**	**0.0154**	**3.3000e-004**	**0.0158**	**0.0000**	**88.7348**	**88.7348**	**2.9600e-003**	**0.0000**	**88.8089**

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	0.1249	0.7976	1.3778	2.7800e-003		0.0142	0.0142		0.0142	0.0142	0.0000	228.9657	228.9657	0.0101	0.0000	229.2180
Total	**0.1249**	**0.7976**	**1.3778**	**2.7800e-003**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**228.9657**	**228.9657**	**0.0101**	**0.0000**	**229.2180**

3.4 Building Construction - 2033

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	1.1600e-003	0.0346	0.0130	1.7000e-004	6.2200e-003	6.0000e-005	6.2800e-003	1.6500e-003	6.0000e-005	1.7100e-003	0.0000	16.9061	16.9061	8.1000e-004	0.0000	16.9265
Vendor	3.9000e-003	0.1465	0.0394	5.2000e-004	0.0139	1.6000e-004	0.0141	4.0200e-003	1.5000e-004	4.1700e-003	0.0000	50.5461	50.5461	1.9200e-003	0.0000	50.5941
Worker	6.7000e-003	3.4400e-003	0.0465	2.3000e-004	0.0367	1.3000e-004	0.0369	9.7700e-003	1.2000e-004	9.8900e-003	0.0000	21.2826	21.2826	2.3000e-004	0.0000	21.2884
Total	**0.0118**	**0.1845**	**0.0989**	**9.2000e-004**	**0.0568**	**3.5000e-004**	**0.0572**	**0.0154**	**3.3000e-004**	**0.0158**	**0.0000**	**88.7348**	**88.7348**	**2.9600e-003**	**0.0000**	**88.8089**

3.4 Building Construction - 2034

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	0.0804	0.5133	0.8867	1.7900e-003		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	147.3544	147.3544	6.4900e-003	0.0000	147.5167
Total	**0.0804**	**0.5133**	**0.8867**	**1.7900e-003**		**9.1500e-003**	**9.1500e-003**		**9.1500e-003**	**9.1500e-003**	**0.0000**	**147.3544**	**147.3544**	**6.4900e-003**	**0.0000**	**147.5167**

3.4 Building Construction - 2034

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	7.4000e-004	0.0221	8.4000e-003	1.1000e-004	5.8400e-003	4.0000e-005	5.8800e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	10.8600	10.8600	5.2000e-004	0.0000	10.8731
Vendor	2.4900e-003	0.0938	0.0252	3.4000e-004	8.9500e-003	1.0000e-004	9.0500e-003	2.5900e-003	9.0000e-005	2.6800e-003	0.0000	32.4845	32.4845	1.2300e-003	0.0000	32.5152
Worker	4.0600e-003	2.0800e-003	0.0285	1.5000e-004	0.0236	8.0000e-005	0.0237	6.2900e-003	7.0000e-005	6.3600e-003	0.0000	13.4838	13.4838	1.4000e-004	0.0000	13.4873
Total	**7.2900e-003**	**0.1179**	**0.0621**	**6.0000e-004**	**0.0384**	**2.2000e-004**	**0.0386**	**0.0104**	**2.0000e-004**	**0.0106**	**0.0000**	**56.8283**	**56.8283**	**1.8900e-003**	**0.0000**	**56.8755**

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	0.0804	0.5133	0.8867	1.7900e-003		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	147.3542	147.3542	6.4900e-003	0.0000	147.5165
Total	**0.0804**	**0.5133**	**0.8867**	**1.7900e-003**		**9.1500e-003**	**9.1500e-003**		**9.1500e-003**	**9.1500e-003**	**0.0000**	**147.3542**	**147.3542**	**6.4900e-003**	**0.0000**	**147.5165**

3.4 Building Construction - 2034

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	7.4000e-004	0.0221	8.4000e-003	1.1000e-004	5.8400e-003	4.0000e-005	5.8800e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	10.8600	10.8600	5.2000e-004	0.0000	10.8731
Vendor	2.4900e-003	0.0938	0.0252	3.4000e-004	8.9500e-003	1.0000e-004	9.0500e-003	2.5900e-003	9.0000e-005	2.6800e-003	0.0000	32.4845	32.4845	1.2300e-003	0.0000	32.5152
Worker	4.0600e-003	2.0800e-003	0.0285	1.5000e-004	0.0236	8.0000e-005	0.0237	6.2900e-003	7.0000e-005	6.3600e-003	0.0000	13.4838	13.4838	1.4000e-004	0.0000	13.4873
Total	**7.2900e-003**	**0.1179**	**0.0621**	**6.0000e-004**	**0.0384**	**2.2000e-004**	**0.0386**	**0.0104**	**2.0000e-004**	**0.0106**	**0.0000**	**56.8283**	**56.8283**	**1.8900e-003**	**0.0000**	**56.8755**

3.5 Paving - 2033

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	9.2100e-003	0.0510	0.1065	1.8000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	15.7553	15.7553	7.5000e-004	0.0000	15.7740
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5800e-003**	**0.0510**	**0.1065**	**1.8000e-004**		**1.9900e-003**	**1.9900e-003**		**1.9900e-003**	**1.9900e-003**	**0.0000**	**15.7553**	**15.7553**	**7.5000e-004**	**0.0000**	**15.7740**

3.5 Paving - 2033

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	1.8000e-004	9.0000e-005	1.2800e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5841	0.5841	1.0000e-005	0.0000	0.5842
Total	**1.8000e-004**	**9.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5841**	**0.5841**	**1.0000e-005**	**0.0000**	**0.5842**

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	9.2100e-003	0.0510	0.1065	1.8000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	15.7553	15.7553	7.5000e-004	0.0000	15.7740
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5800e-003**	**0.0510**	**0.1065**	**1.8000e-004**		**1.9900e-003**	**1.9900e-003**		**1.9900e-003**	**1.9900e-003**	**0.0000**	**15.7553**	**15.7553**	**7.5000e-004**	**0.0000**	**15.7740**

3.5 Paving - 2033

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	1.8000e-004	9.0000e-005	1.2800e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5841	0.5841	1.0000e-005	0.0000	0.5842
Total	**1.8000e-004**	**9.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5841**	**0.5841**	**1.0000e-005**	**0.0000**	**0.5842**

3.6 Architectural Coating - 2034

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	0.7744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1600e-003	0.0141	0.0297	5.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.2129	4.2129	1.7000e-004	0.0000	4.2171
Total	**0.7765**	**0.0141**	**0.0297**	**5.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.2129**	**4.2129**	**1.7000e-004**	**0.0000**	**4.2171**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.0000e-004	1.4200e-003	1.0000e-005	1.1700e-003	0.0000	1.1800e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.6697	0.6697	1.0000e-005	0.0000	0.6699
Total	**2.0000e-004**	**1.0000e-004**	**1.4200e-003**	**1.0000e-005**	**1.1700e-003**	**0.0000**	**1.1800e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.6697**	**0.6697**	**1.0000e-005**	**0.0000**	**0.6699**

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	0.7744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1600e-003	0.0141	0.0297	5.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.2129	4.2129	1.7000e-004	0.0000	4.2171
Total	**0.7765**	**0.0141**	**0.0297**	**5.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.2129**	**4.2129**	**1.7000e-004**	**0.0000**	**4.2171**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.0000e-004	1.4200e-003	1.0000e-005	1.1700e-003	0.0000	1.1800e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.6697	0.6697	1.0000e-005	0.0000	0.6699
Total	**2.0000e-004**	**1.0000e-004**	**1.4200e-003**	**1.0000e-005**	**1.1700e-003**	**0.0000**	**1.1800e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.6697**	**0.6697**	**1.0000e-005**	**0.0000**	**0.6699**

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	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Unmitigated	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	999.70	999.70	0.00	1,638,054	1,638,054
Parking Lot	0.00	0.00	0.00		
Total	999.70	999.70	0.00	1,638,054	1,638,054

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Parking Lot	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
Enclosed Parking with Elevator	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664
Government (Civic Center)	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664
Parking Lot	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	371.7134	371.7134	0.0168	3.4800e-003	373.1698
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	421.4828	421.4828	0.0191	3.9400e-003	423.1343
NaturalGas Mitigated	4.0800e-003	0.0371	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3754	40.3754	7.7000e-004	7.4000e-004	40.6153
NaturalGas Unmitigated	5.7400e-003	0.0522	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	56.7818	56.7818	1.0900e-003	1.0400e-003	57.1192

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					
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
Government (Civic Center)	1.06405e+006	5.7400e-003	0.0522	0.0438	3.1000e-004		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	56.7818	56.7818	1.0900e-003	1.0400e-003	57.1192
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**5.7400e-003**	**0.0522**	**0.0438**	**3.1000e-004**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**56.7818**	**56.7818**	**1.0900e-003**	**1.0400e-003**	**57.1192**

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					
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
Government (Civic Center)	756606	4.0800e-003	0.0371	0.0312	2.2000e-004		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	40.3754	40.3754	7.7000e-004	7.4000e-004	40.6153
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**4.0800e-003**	**0.0371**	**0.0312**	**2.2000e-004**		**2.8200e-003**	**2.8200e-003**		**2.8200e-003**	**2.8200e-003**	**0.0000**	**40.3754**	**40.3754**	**7.7000e-004**	**7.4000e-004**	**40.6153**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	285616	83.0891	3.7600e-003	7.8000e-004	83.4147
Government (Civic Center)	1.15895e+006	337.1518	0.0153	3.1500e-003	338.4729
Parking Lot	4268.95	1.2419	6.0000e-005	1.0000e-005	1.2468
Total		**421.4828**	**0.0191**	**3.9400e-003**	**423.1343**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	230042	66.9219	3.0300e-003	6.3000e-004	67.1841
Government (Civic Center)	1.04361e+006	303.5981	0.0137	2.8400e-003	304.7877
Parking Lot	4102.28	1.1934	5.0000e-005	1.0000e-005	1.1981
Total		**371.7134**	**0.0168**	**3.4800e-003**	**373.1698**

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Unmitigated	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003

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	0.0774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Total	**0.3354**	**1.0000e-005**	**1.1500e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2500e-003**	**2.2500e-003**	**1.0000e-005**	**0.0000**	**2.4000e-003**

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	0.0774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Total	**0.3354**	**1.0000e-005**	**1.1500e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2500e-003**	**2.2500e-003**	**1.0000e-005**	**0.0000**	**2.4000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.4814	0.4221	0.0102	46.0725
Unmitigated	32.4814	0.4221	0.0102	46.0725

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	12.9129 / 7.91435	32.4814	0.4221	0.0102	46.0725
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**32.4814**	**0.4221**	**0.0102**	**46.0725**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	12.9129 / 7.91435	32.4814	0.4221	0.0102	46.0725
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**32.4814**	**0.4221**	**0.0102**	**46.0725**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	43.6146	2.5776	0.0000	108.0534
Unmitigated	43.6146	2.5776	0.0000	108.0534

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	214.86	43.6146	2.5776	0.0000	108.0534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**43.6146**	**2.5776**	**0.0000**	**108.0534**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	214.86	43.6146	2.5776	0.0000	108.0534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**43.6146**	**2.5776**	**0.0000**	**108.0534**

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
Emergency Generator	1	0	24	503	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	9.9100e-003	0.0277	0.0253	5.0000e-005		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003	0.0000	4.5970	4.5970	6.4000e-004	0.0000	4.6131
Total	**9.9100e-003**	**0.0277**	**0.0253**	**5.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**	**0.0000**	**4.5970**	**4.5970**	**6.4000e-004**	**0.0000**	**4.6131**

11.0 Vegetation

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

- CalEEMod Outputs – Existing Conditions
- CalEEMod Outputs – Construction
- CalEEMod Outputs – Construction (Mitigated)
- CalEEMod Outputs – Operation
- Screen3 Outputs

Sunnyvale Phase I

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	109.00	1000sqft	2.50	109,000.00	0
Government Office Building	12.00	1000sqft	0.28	12,000.00	0
Enclosed Parking with Elevator	41.22	1000sqft	0.95	41,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Winter 2019/2020

Land Use - 109,000 sf city hall, 12,000 sf EOC, 41,216 sf underground garage

Construction Phase - Start Winter 2019/2020 for 18 months

Trips and VMT - Total Haul trips: Demolition 497; Grading 2,442; Construction 1,520 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - 96,250 sf

Grading - Export of 24,424 of soil from excavation, default acres graded

Vehicle Trips - Revised trip rates per Kimley Horn

Road Dust -

Energy Use -

Solid Waste - City Hall: approximately 74.7 cy of waste/week, 250 lbs/ cy, total of 485.2 tons/year, EOC: 26.44 cy/ week, total of 39.67 ton/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph, Tier 3 equipment and Level 3 DPF level

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 1 595kW generator for City Hall; 1 110kW generator for EOC; same fuel as existing units (diesel), assumes 50 hours a year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	230.00	334.00
tblConstructionPhase	NumDays	8.00	40.00
tblGrading	MaterialExported	0.00	24,424.00
tblLandUse	LandUseSquareFeet	41,220.00	41,216.00
tblSolidWaste	SolidWasteGenerationRate	621.30	485.20
tblSolidWaste	SolidWasteGenerationRate	11.16	39.67
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	148.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	798.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	438.00	497.00
tblTripsAndVMT	HaulingTripNumber	3,053.00	2,442.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,520.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	0.00	15.46
tblVehicleTrips	WD_TR	27.92	29.00
tblVehicleTrips	WD_TR	68.93	15.46

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	0.3569	3.8349	2.7204	6.6900e-003	0.2852	0.1656	0.4508	0.1034	0.1550	0.2584	0.0000	604.4374	604.4374	0.1013	0.0000	606.9696
2021	1.5633	1.4303	1.2569	2.7900e-003	0.0526	0.0648	0.1174	0.0142	0.0610	0.0752	0.0000	248.3628	248.3628	0.0406	0.0000	249.3772
Maximum	**1.5633**	**3.8349**	**2.7204**	**6.6900e-003**	**0.2852**	**0.1656**	**0.4508**	**0.1034**	**0.1550**	**0.2584**	**0.0000**	**604.4374**	**604.4374**	**0.1013**	**0.0000**	**606.9696**

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	0.1447	2.9248	2.9242	6.6900e-003	0.1863	0.0219	0.2081	0.0623	0.0217	0.0840	0.0000	604.4370	604.4370	0.1013	0.0000	606.9692
2021	1.4809	1.2190	1.3415	2.7900e-003	0.0526	9.9000e-003	0.0625	0.0142	9.8500e-003	0.0240	0.0000	248.3626	248.3626	0.0406	0.0000	249.3770
Maximum	**1.4809**	**2.9248**	**2.9242**	**6.6900e-003**	**0.1863**	**0.0219**	**0.2081**	**0.0623**	**0.0217**	**0.0840**	**0.0000**	**604.4370**	**604.4370**	**0.1013**	**0.0000**	**606.9692**

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**15.34**	**21.30**	**-7.25**	**0.00**	**29.28**	**86.21**	**52.36**	**34.95**	**85.39**	**67.61**	**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**	1.5288	1.0594
2	**4-1-2020**	**6-30-2020**	0.9197	0.6930
3	**7-1-2020**	**9-30-2020**	0.8588	0.6484
4	**10-1-2020**	**12-31-2020**	0.8625	0.6520
5	**1-1-2021**	**3-31-2021**	0.7658	0.6233
6	**4-1-2021**	**6-30-2021**	2.1697	2.0202
7	**7-1-2021**	**9-30-2021**	0.0389	0.0372
		Highest	2.1697	2.0202

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	0.0107	0.0971	0.0816	5.8000e-004		7.3800e-003	7.3800e-003		7.3800e-003	7.3800e-003	0.0000	803.5852	803.5852	0.0336	8.4700e-003	806.9478
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0388	0.1634	0.1055	1.9000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	18.0117	18.0117	2.5300e-003	0.0000	18.0748
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	52.8393	60.4654	0.7857	0.0190	85.7657
Total	**1.1816**	**2.4838**	**5.6189**	**0.0202**	**1.7077**	**0.0292**	**1.7369**	**0.4583**	**0.0281**	**0.4864**	**114.1700**	**2,657.1572**	**2,771.3272**	**7.1829**	**0.0275**	**2,959.0809**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	696.8968	696.8968	0.0296	7.1900e-003	699.7796
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0388	0.1634	0.1055	1.9000e-004		5.7100e-003	5.7100e-003		5.7100e-003	5.7100e-003	0.0000	18.0117	18.0117	2.5300e-003	0.0000	18.0748
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	52.8393	60.4654	0.7857	0.0190	85.7657
Total	**1.1785**	**2.4558**	**5.5953**	**0.0200**	**1.7077**	**0.0270**	**1.7348**	**0.4583**	**0.0260**	**0.4843**	**114.1700**	**2,550.4688**	**2,664.6388**	**7.1789**	**0.0262**	**2,851.9127**

	ROG	NOx	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	**0.26**	**1.13**	**0.42**	**0.84**	**0.00**	**7.30**	**0.12**	**0.00**	**7.58**	**0.44**	**0.00**	**4.02**	**3.85**	**0.06**	**4.66**	**3.62**

3.0 Construction Detail

Construction Phase

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Grading	Grading	1/28/2020	3/23/2020	5	40	
3	Building Construction	Building Construction	3/23/2020	7/1/2021	5	334	
4	Paving	Paving	3/23/2020	4/15/2020	5	18	
5	Architectural Coating	Architectural Coating	5/16/2021	7/1/2021	5	34	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 181,500; Non-Residential Outdoor: 60,500; Striped Parking Area: 2,473 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	497.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	2,442.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	27.00	1,520.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

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					0.0474	0.0000	0.0474	7.1700e-003	0.0000	7.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0474**	**0.0166**	**0.0640**	**7.1700e-003**	**0.0154**	**0.0226**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.0213	0.0000	0.0213	3.2300e-003	0.0000	3.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2500e-003	0.1831	0.2467	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**9.2500e-003**	**0.1831**	**0.2467**	**3.9000e-004**	**0.0213**	**1.2900e-003**	**0.0226**	**3.2300e-003**	**1.2900e-003**	**4.5200e-003**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.1324	0.0000	0.1324	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.5277	0.3211	5.9000e-004		0.0255	0.0255		0.0234	0.0234	0.0000	52.1175	52.1175	0.0169	0.0000	52.5389
Total	**0.0486**	**0.5277**	**0.3211**	**5.9000e-004**	**0.1324**	**0.0255**	**0.1579**	**0.0676**	**0.0234**	**0.0910**	**0.0000**	**52.1175**	**52.1175**	**0.0169**	**0.0000**	**52.5389**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

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					0.0596	0.0000	0.0596	0.0304	0.0000	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0145	0.2968	0.3798	5.9000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	52.1174	52.1174	0.0169	0.0000	52.5388
Total	**0.0145**	**0.2968**	**0.3798**	**5.9000e-004**	**0.0596**	**2.2700e-003**	**0.0619**	**0.0304**	**2.2700e-003**	**0.0327**	**0.0000**	**52.1174**	**52.1174**	**0.0169**	**0.0000**	**52.5388**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

3.4 Building Construction - 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	0.2162	1.9570	1.7186	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2422	236.2422	0.0576	0.0000	237.6831
Total	**0.2162**	**1.9570**	**1.7186**	**2.7500e-003**		**0.1139**	**0.1139**		**0.1071**	**0.1071**	**0.0000**	**236.2422**	**236.2422**	**0.0576**	**0.0000**	**237.6831**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

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	0.0687	1.4511	1.8231	2.7500e-003		0.0138	0.0138		0.0138	0.0138	0.0000	236.2419	236.2419	0.0576	0.0000	237.6828
Total	**0.0687**	**1.4511**	**1.8231**	**2.7500e-003**		**0.0138**	**0.0138**		**0.0138**	**0.0138**	**0.0000**	**236.2419**	**236.2419**	**0.0576**	**0.0000**	**237.6828**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

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	0.0438	0.9247	1.1618	1.7500e-003		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.0438**	**0.9247**	**1.1618**	**1.7500e-003**		**8.8100e-003**	**8.8100e-003**		**8.8100e-003**	**8.8100e-003**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

3.5 Paving - 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	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

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	3.9500e-003	0.0818	0.1218	1.7000e-004		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9500e-003**	**0.0818**	**0.1218**	**1.7000e-004**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

3.6 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	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4201**	**0.0260**	**0.0309**	**5.0000e-005**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0100e-003	0.0231	0.0312	5.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4174**	**0.0231**	**0.0312**	**5.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

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	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Unmitigated	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	3,161.00	0.00	0.00	4,316,203	4,316,203
Government Office Building	185.52	185.52	0.00	272,695	272,695
Total	3,346.52	185.52	0.00	4,588,899	4,588,899

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government (Civic Center)	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government Office Building	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	621.7364	621.7364	0.0281	5.8200e-003	624.1726
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	697.8837	697.8837	0.0316	6.5300e-003	700.6183
NaturalGas Mitigated	7.5900e-003	0.0690	0.0580	4.1000e-004		5.2500e-003	5.2500e-003		5.2500e-003	5.2500e-003	0.0000	75.1604	75.1604	1.4400e-003	1.3800e-003	75.6070
NaturalGas Unmitigated	0.0107	0.0971	0.0816	5.8000e-004		7.3800e-003	7.3800e-003		7.3800e-003	7.3800e-003	0.0000	105.7014	105.7014	2.0300e-003	1.9400e-003	106.3296

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					
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
Government (Civic Center)	1.78433e+006	9.6200e-003	0.0875	0.0735	5.2000e-004		6.6500e-003	6.6500e-003		6.6500e-003	6.6500e-003	0.0000	95.2186	95.2186	1.8300e-003	1.7500e-003	95.7845
Government Office Building	196440	1.0600e-003	9.6300e-003	8.0900e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4828	10.4828	2.0000e-004	1.9000e-004	10.5451
Total		**0.0107**	**0.0971**	**0.0816**	**5.8000e-004**		**7.3800e-003**	**7.3800e-003**		**7.3800e-003**	**7.3800e-003**	**0.0000**	**105.7014**	**105.7014**	**2.0300e-003**	**1.9400e-003**	**106.3296**

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					
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
Government (Civic Center)	1.26877e+006	6.8400e-003	0.0622	0.0522	3.7000e-004		4.7300e-003	4.7300e-003		4.7300e-003	4.7300e-003	0.0000	67.7065	67.7065	1.3000e-003	1.2400e-003	68.1088
Government Office Building	139681	7.5000e-004	6.8500e-003	5.7500e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4539	7.4539	1.4000e-004	1.4000e-004	7.4982
Total		**7.5900e-003**	**0.0690**	**0.0580**	**4.1000e-004**		**5.2500e-003**	**5.2500e-003**		**5.2500e-003**	**5.2500e-003**	**0.0000**	**75.1604**	**75.1604**	**1.4400e-003**	**1.3800e-003**	**75.6070**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	241526	70.2626	3.1800e-003	6.6000e-004	70.5379
Government (Civic Center)	1.94347e+006	565.3777	0.0256	5.2900e-003	567.5930
Government Office Building	213960	62.2434	2.8100e-003	5.8000e-004	62.4873
Total		**697.8837**	**0.0316**	**6.5300e-003**	**700.6183**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	194505	56.5837	2.5600e-003	5.3000e-004	56.8054
Government (Civic Center)	1.75017e+006	509.1434	0.0230	4.7600e-003	511.1384
Government Office Building	192531	56.0093	2.5300e-003	5.2000e-004	56.2288
Total		**621.7364**	**0.0281**	**5.8100e-003**	**624.1726**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Unmitigated	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	60.4654	0.7857	0.0190	85.7657
Unmitigated	60.4654	0.7857	0.0190	85.7657

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	54.4688	0.7078	0.0171	77.2600
Government Office Building	2.38392 / 1.46111	5.9966	0.0779	1.8800e-003	8.5057
Total		**60.4654**	**0.7857**	**0.0190**	**85.7657**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	54.4688	0.7078	0.0171	77.2600
Government Office Building	2.38392 / 1.46111	5.9966	0.0779	1.8800e-003	8.5057
Total		**60.4654**	**0.7857**	**0.0190**	**85.7657**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	106.5439	6.2966	0.0000	263.9579
Unmitigated	106.5439	6.2966	0.0000	263.9579

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

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
Emergency Generator	1	0	50	148	0.73	Diesel
Emergency Generator	1	0	50	798	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	6.0700e-003	0.0170	0.0220	3.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	2.8179	2.8179	4.0000e-004	0.0000	2.8278
Emergency Generator - Diesel (750 - 9999 HP)	0.0327	0.1464	0.0835	1.6000e-004		4.8200e-003	4.8200e-003		4.8200e-003	4.8200e-003	0.0000	15.1938	15.1938	2.1300e-003	0.0000	15.2471
Total	**0.0388**	**0.1634**	**0.1055**	**1.9000e-004**		**5.7100e-003**	**5.7100e-003**		**5.7100e-003**	**5.7100e-003**	**0.0000**	**18.0117**	**18.0117**	**2.5300e-003**	**0.0000**	**18.0748**

11.0 Vegetation

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Sunnyvale Phase II

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	120.00	1000sqft	2.75	120,000.00	0
Enclosed Parking with Elevator	48.76	1000sqft	1.12	48,755.00	0
Enclosed Parking with Elevator	38.02	1000sqft	0.87	38,016.00	0
Parking Lot	80.68	1000sqft	1.85	80,684.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Start Jan 1, 2023

Land Use - Library 120,000 sf, two underground parking structures 48,755 sf and 38,016 sf, aboveground parking lot 80,684

Construction Phase - Start Jan 1, 2023, 18 month duration

Trips and VMT - Total Haul trips: Demolition 315; Grading 5,142; Construction 1,507 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - Demolish 60,900 sf

Grading - spoils 51,420 cy, defaul acres

Vehicle Trips - Revised trip generation per Kimley Horn

Energy Use -

Solid Waste - Library: approximately 190 cy of waste/week, 250 lbs/ cy, total of 285.2 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph offroad speed, Tier 3 engines, and Level 3 DPF

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 1 872kW generator for Library; same fuel as existing units (diesel), assumes 50 hours a year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	230.00	332.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	16.00
tblGrading	MaterialExported	0.00	51,420.00
tblLandUse	LandUseSquareFeet	38,020.00	38,016.00
tblLandUse	LandUseSquareFeet	48,760.00	48,755.00
tblLandUse	LandUseSquareFeet	80,680.00	80,684.00
tblSolidWaste	SolidWasteGenerationRate	110.51	285.20
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	872.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	277.00	315.00

tblTripsAndVMT	HaulingTripNumber	6,428.00	5,142.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,507.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	46.55	20.00
tblVehicleTrips	SU_TR	25.49	10.95
tblVehicleTrips	WD_TR	56.24	24.17

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					
2023	0.2866	3.0203	2.7514	8.3500e-003	0.3539	0.1019	0.4557	0.1240	0.0954	0.2194	0.0000	763.3742	763.3742	0.1044	0.0000	765.9829
2024	1.5771	1.1940	1.3153	3.3700e-003	0.0967	0.0419	0.1387	0.0261	0.0395	0.0656	0.0000	303.0379	303.0379	0.0412	0.0000	304.0677
Maximum	**1.5771**	**3.0203**	**2.7514**	**8.3500e-003**	**0.3539**	**0.1019**	**0.4557**	**0.1240**	**0.0954**	**0.2194**	**0.0000**	**763.3742**	**763.3742**	**0.1044**	**0.0000**	**765.9829**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1594	2.9195	3.0720	8.3500e-003	0.2637	0.0199	0.2836	0.0842	0.0198	0.1040	0.0000	763.3738	763.3738	0.1044	0.0000	765.9825

2024	1.5229	1.2475	1.4274	3.3700e-003	0.0967	9.8700e-003	0.1066	0.0261	9.8200e-003	0.0360	0.0000	303.0378	303.0378	0.0412	0.0000	304.0675
Maximum	**1.5229**	**2.9195**	**3.0720**	**8.3500e-003**	**0.2637**	**0.0199**	**0.2836**	**0.0842**	**0.0198**	**0.1040**	**0.0000**	**763.3738**	**763.3738**	**0.1044**	**0.0000**	**765.9825**

	ROG	NOx	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	**9.74**	**1.12**	**-10.64**	**0.00**	**20.01**	**79.29**	**34.35**	**26.50**	**78.03**	**50.89**	**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	**1-1-2023**	**3-31-2023**	1.2024	1.0744
2	**4-1-2023**	**6-30-2023**	0.7456	0.7148
3	**7-1-2023**	**9-30-2023**	0.6868	0.6521
4	**10-1-2023**	**12-31-2023**	0.6901	0.6554
5	**1-1-2024**	**3-31-2024**	0.6454	0.6449
6	**4-1-2024**	**6-30-2024**	2.1093	2.1091
7	**7-1-2024**	**9-30-2024**	0.0389	0.0390
		Highest	2.1093	2.1091

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	613.4172	613.4172	0.0233	7.2600e-003	616.1627
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275

Water						0.0000	0.0000		0.0000	0.0000	1.1912	11.8898	13.0810	0.1229	3.0000e-003	17.0471
Total	**1.1535**	**2.4668**	**4.9685**	**0.0188**	**1.6409**	**0.0318**	**1.6727**	**0.4403**	**0.0308**	**0.4711**	**59.0842**	**2,272.0109**	**2,331.0951**	**3.6284**	**0.0103**	**2,424.8617**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	532.9901	532.9901	0.0207	6.1700e-003	535.3464
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275
Water						0.0000	0.0000		0.0000	0.0000	1.1912	11.8898	13.0810	0.1229	3.0000e-003	17.0471
Total	**1.1498**	**2.4332**	**4.9402**	**0.0186**	**1.6409**	**0.0292**	**1.6701**	**0.4403**	**0.0282**	**0.4685**	**59.0842**	**2,191.5838**	**2,250.6680**	**3.6257**	**9.1700e-003**	**2,344.0454**

	ROG	NOx	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	**0.32**	**1.36**	**0.57**	**1.06**	**0.00**	**8.03**	**0.15**	**0.00**	**8.29**	**0.54**	**0.00**	**3.54**	**3.45**	**0.07**	**10.62**	**3.33**

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	1/1/2023	1/28/2023	5	20	
2	Grading	Grading	1/28/2023	3/24/2023	5	40	

3	Building Construction	Building Construction	3/24/2023	7/1/2024	5	332	
4	Paving	Paving	3/24/2023	4/16/2023	5	16	
5	Architectural Coating	Architectural Coating	5/16/2024	7/1/2024	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 3.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area:

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	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	315.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	5,142.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	1,507.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0300	0.0000	0.0300	4.5400e-003	0.0000	4.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0300**	**9.9800e-003**	**0.0400**	**4.5400e-003**	**9.2800e-003**	**0.0138**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

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	8.0000e-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187
Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

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					0.0135	0.0000	0.0135	2.0400e-003	0.0000	2.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2500e-003	0.1831	0.2467	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**9.2500e-003**	**0.1831**	**0.2467**	**3.9000e-004**	**0.0135**	**1.2900e-003**	**0.0148**	**2.0400e-003**	**1.2900e-003**	**3.3300e-003**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

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-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187

Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1340	0.0000	0.1340	0.0678	0.0000	0.0678	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3587	0.2950	5.9000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	52.1212	52.1212	0.0169	0.0000	52.5427
Total	**0.0342**	**0.3587**	**0.2950**	**5.9000e-004**	**0.1340**	**0.0155**	**0.1495**	**0.0678**	**0.0143**	**0.0821**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5427**

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	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

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					0.0603	0.0000	0.0603	0.0305	0.0000	0.0305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0145	0.2968	0.3798	5.9000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	52.1212	52.1212	0.0169	0.0000	52.5426
Total	**0.0145**	**0.2968**	**0.3798**	**5.9000e-004**	**0.0603**	**2.2700e-003**	**0.0626**	**0.0305**	**2.2700e-003**	**0.0328**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5426**

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	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1581	1.4457	1.6325	2.7100e-003		0.0703	0.0703		0.0662	0.0662	0.0000	232.9638	232.9638	0.0554	0.0000	234.3492
Total	**0.1581**	**1.4457**	**1.6325**	**2.7100e-003**		**0.0703**	**0.0703**		**0.0662**	**0.0662**	**0.0000**	**232.9638**	**232.9638**	**0.0554**	**0.0000**	**234.3492**

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	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

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	0.0677	1.4297	1.7963	2.7100e-003		0.0136	0.0136		0.0136	0.0136	0.0000	232.9635	232.9635	0.0554	0.0000	234.3490

Total	**0.0677**	**1.4297**	**1.7963**	**2.7100e-003**		**0.0136**	**0.0136**		**0.0136**	**0.0136**	**0.0000**	**232.9635**	**232.9635**	**0.0554**	**0.0000**	**234.3490**

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	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0964	0.8806	1.0589	1.7700e-003		0.0402	0.0402		0.0378	0.0378	0.0000	151.8612	151.8612	0.0359	0.0000	152.7589
Total	**0.0964**	**0.8806**	**1.0589**	**1.7700e-003**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**151.8612**	**151.8612**	**0.0359**	**0.0000**	**152.7589**

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	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

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	0.0441	0.9318	1.1707	1.7700e-003		8.8800e-003	8.8800e-003		8.8800e-003	8.8800e-003	0.0000	151.8610	151.8610	0.0359	0.0000	152.7588
Total	**0.0441**	**0.9318**	**1.1707**	**1.7700e-003**		**8.8800e-003**	**8.8800e-003**		**8.8800e-003**	**8.8800e-003**	**0.0000**	**151.8610**	**151.8610**	**0.0359**	**0.0000**	**152.7588**

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	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0815	0.1167	1.8000e-004		4.0800e-003	4.0800e-003		3.7600e-003	3.7600e-003	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0815**	**0.1167**	**1.8000e-004**		**4.0800e-003**	**4.0800e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

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	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

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	4.4900e-003	0.0904	0.1384	1.8000e-004		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9100e-003**	**0.0904**	**0.1384**	**1.8000e-004**		**7.3000e-004**	**7.3000e-004**		**7.3000e-004**	**7.3000e-004**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

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	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0201	0.0299	5.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4517**	**0.0201**	**0.0299**	**5.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

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-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8000e-004	0.0224	0.0302	5.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4497**	**0.0224**	**0.0302**	**5.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

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-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

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	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Unmitigated	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	2,900.40	2,400.00	1314.00	4,410,502	4,410,502
Parking Lot	0.00	0.00	0.00		
Total	2,900.40	2,400.00	1,314.00	4,410,502	4,410,502

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Parking Lot	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
Enclosed Parking with Elevator	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Library	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	400.6643	400.6643	0.0181	3.7500e-003	402.2342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	444.4887	444.4887	0.0201	4.1600e-003	446.2304
NaturalGas Mitigated	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3258	132.3258	2.5400e-003	2.4300e-003	133.1122
NaturalGas Unmitigated	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.9285	168.9285	3.2400e-003	3.1000e-003	169.9323

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					
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
Library	3.1656e+006	0.0171	0.1552	0.1304	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	168.9285	168.9285	3.2400e-003	3.1000e-003	169.9323
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0171**	**0.1552**	**0.1304**	**9.3000e-004**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**168.9285**	**168.9285**	**3.2400e-003**	**3.1000e-003**	**169.9323**

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					
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
Library	2.47969e+006	0.0134	0.1216	0.1021	7.3000e-004		9.2400e-003	9.2400e-003		9.2400e-003	9.2400e-003	0.0000	132.3258	132.3258	2.5400e-003	2.4300e-003	133.1122
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0134**	**0.1216**	**0.1021**	**7.3000e-004**		**9.2400e-003**	**9.2400e-003**		**9.2400e-003**	**9.2400e-003**	**0.0000**	**132.3258**	**132.3258**	**2.5400e-003**	**2.4300e-003**	**133.1122**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	222774	64.8074	2.9300e-003	6.1000e-004	65.0614
Enclosed Parking with Elevator	285704	83.1147	3.7600e-003	7.8000e-004	83.4403
Library	991200	288.3515	0.0130	2.7000e-003	289.4813
Parking Lot	28239.4	8.2152	3.7000e-004	8.0000e-005	8.2474
Total		**444.4887**	**0.0201**	**4.1700e-003**	**446.2303**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	179432	52.1989	2.3600e-003	4.9000e-004	52.4034
Enclosed Parking with Elevator	230155	66.9546	3.0300e-003	6.3000e-004	67.2170
Library	939571	273.3320	0.0124	2.5600e-003	274.4030
Parking Lot	28114.4	8.1788	3.7000e-004	8.0000e-005	8.2109
Total		**400.6643**	**0.0181**	**3.7600e-003**	**402.2342**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Unmitigated	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.0810	0.1229	3.0000e-003	17.0471
Unmitigated	13.0810	0.1229	3.0000e-003	17.0471

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Library	3.75467 / 5.87269	13.0810	0.1229	3.0000e-003	17.0471
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0810**	**0.1229**	**3.0000e-003**	**17.0471**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

Library	3.75467 / 5.87269	13.0810	0.1229	3.0000e-003	17.0471
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0810**	**0.1229**	**3.0000e-003**	**17.0471**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.8930	3.4214	0.0000	143.4275
Unmitigated	57.8930	3.4214	0.0000	143.4275

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

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
Emergency Generator	1	0	50	872	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0358	0.1600	0.0912	1.7000e-004		5.2600e-003	5.2600e-003		5.2600e-003	5.2600e-003	0.0000	16.6028	16.6028	2.3300e-003	0.0000	16.6610
Total	**0.0358**	**0.1600**	**0.0912**	**1.7000e-004**		**5.2600e-003**	**5.2600e-003**		**5.2600e-003**	**5.2600e-003**	**0.0000**	**16.6028**	**16.6028**	**2.3300e-003**	**0.0000**	**16.6610**

11.0 Vegetation

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

- CalEEMod Outputs – Existing Conditions
- CalEEMod Outputs – Construction
- CalEEMod Outputs – Construction (Mitigated)
- CalEEMod Outputs – Operation
- Screen3 Outputs

Sunnyvale Phase I

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	109.00	1000sqft	2.50	109,000.00	0
Enclosed Parking with Elevator	41.22	1000sqft	0.95	41,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2022
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Winter 2019, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - 109,000 sf city hall, 41,216 sf underground garage

Construction Phase - N/A

Trips and VMT - N/A

Demolition - N/A

Grading - N/A

Vehicle Trips - Revised trip rates per Kimley Horn

Road Dust -

Energy Use - No natural gas use

Solid Waste - City Hall: approximately 74.7 cy of waste/week, 250 lbs/ cy, total of 485.2 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 441kW (591 hp) generator for City Hall; same fuel as existing units (diesel), assumes 50 hours a year

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24NG	16.31	0.00
tblLandUse	LandUseSquareFeet	41,220.00	41,216.00
tblSolidWaste	SolidWasteGenerationRate	621.30	485.20
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	591.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	438.00	497.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,442.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,520.00
tblVehicleTrips	WD_TR	27.92	29.00

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					
2019	0.0133	0.1526	0.0840	2.1000e-004	0.0205	6.3900e-003	0.0269	3.5300e-003	5.9500e-003	9.4700e-003	0.0000	19.2310	19.2310	3.7400e-003	0.0000	19.3244
2020	0.3313	3.5656	2.5735	6.5200e-003	0.1625	0.1519	0.3144	0.0469	0.1426	0.1895	0.0000	590.5994	590.5994	0.0908	0.0000	592.8694
2021	1.2837	0.0520	0.0629	1.0000e-004	1.2600e-003	2.8800e-003	4.1500e-003	3.4000e-004	2.7200e-003	3.0600e-003	0.0000	9.0964	9.0964	1.9800e-003	0.0000	9.1460
Maximum	**1.2837**	**3.5656**	**2.5735**	**6.5200e-003**	**0.1625**	**0.1519**	**0.3144**	**0.0469**	**0.1426**	**0.1895**	**0.0000**	**590.5994**	**590.5994**	**0.0908**	**0.0000**	**592.8694**

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					
2019	0.0133	0.1526	0.0840	2.1000e-004	0.0114	6.3900e-003	0.0178	2.1500e-003	5.9500e-003	8.0900e-003	0.0000	19.2310	19.2310	3.7400e-003	0.0000	19.3244
2020	0.3313	3.5656	2.5735	6.5200e-003	0.1312	0.1519	0.2830	0.0370	0.1426	0.1796	0.0000	590.5990	590.5990	0.0908	0.0000	592.8690
2021	1.2837	0.0520	0.0629	1.0000e-004	1.2600e-003	2.8800e-003	4.1500e-003	3.4000e-004	2.7200e-003	3.0600e-003	0.0000	9.0964	9.0964	1.9800e-003	0.0000	9.1460
Maximum	**1.2837**	**3.5656**	**2.5735**	**6.5200e-003**	**0.1312**	**0.1519**	**0.2830**	**0.0370**	**0.1426**	**0.1796**	**0.0000**	**590.5990**	**590.5990**	**0.0908**	**0.0000**	**592.8690**

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**21.96**	**0.00**	**11.71**	**22.34**	**0.00**	**5.62**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**12-21-2019**	**3-20-2020**	1.4578	1.4578
2	**3-21-2020**	**6-20-2020**	0.8708	0.8708
3	**6-21-2020**	**9-20-2020**	0.8703	0.8703
4	**9-21-2020**	**12-20-2020**	0.8451	0.8451
5	**12-21-2020**	**3-20-2021**	1.3308	1.3308
		Highest	1.4578	1.4578

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	0.5562	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5260	2.5063	5.5000	0.0189	1.6064	0.0173	1.6237	0.4312	0.0162	0.4473	0.0000	1,732.5342	1,732.5342	0.0669	0.0000	1,734.2073
Stationary	0.0242	0.0678	0.0618	1.2000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	11.2526	11.2526	1.5800e-003	0.0000	11.2920
Waste						0.0000	0.0000		0.0000	0.0000	98.4912	0.0000	98.4912	5.8207	0.0000	244.0078
Water						0.0000	0.0000		0.0000	0.0000	6.8698	0.0000	6.8698	0.7056	0.0167	29.4745
Total	**1.1065**	**2.5740**	**5.5632**	**0.0190**	**1.6064**	**0.0208**	**1.6272**	**0.4312**	**0.0197**	**0.4509**	**105.3610**	**1,743.7895**	**1,849.1505**	**6.5948**	**0.0167**	**2,018.9845**

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	0.5562	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5260	2.5063	5.5000	0.0189	1.6064	0.0173	1.6237	0.4312	0.0162	0.4473	0.0000	1,732.5342	1,732.5342	0.0669	0.0000	1,734.2073
Stationary	0.0242	0.0678	0.0618	1.2000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	11.2526	11.2526	1.5800e-003	0.0000	11.2920
Waste						0.0000	0.0000		0.0000	0.0000	98.4912	0.0000	98.4912	5.8207	0.0000	244.0078
Water						0.0000	0.0000		0.0000	0.0000	6.8698	0.0000	6.8698	0.7056	0.0167	29.4745
Total	**1.1065**	**2.5740**	**5.5632**	**0.0190**	**1.6064**	**0.0208**	**1.6272**	**0.4312**	**0.0197**	**0.4509**	**105.3610**	**1,743.7895**	**1,849.1505**	**6.5948**	**0.0167**	**2,018.9845**

	ROG	NOx	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

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/21/2019	1/17/2020	5	20	
2	Grading	Grading	1/18/2020	1/29/2020	5	8	
3	Building Construction	Building Construction	1/30/2020	12/16/2020	5	230	
4	Paving	Paving	12/17/2020	1/11/2021	5	18	
5	Architectural Coating	Architectural Coating	1/12/2021	2/4/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 163,500; Non-Residential Outdoor: 54,500; Striped Parking Area: 2,473 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	497.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	2,442.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	52.00	25.00	1,520.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

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					0.0166	0.0000	0.0166	2.5100e-003	0.0000	2.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1252	0.0772	1.4000e-004		6.2800e-003	6.2800e-003		5.8400e-003	5.8400e-003	0.0000	12.1192	12.1192	3.3700e-003	0.0000	12.2035
Total	**0.0123**	**0.1252**	**0.0772**	**1.4000e-004**	**0.0166**	**6.2800e-003**	**0.0229**	**2.5100e-003**	**5.8400e-003**	**8.3500e-003**	**0.0000**	**12.1192**	**12.1192**	**3.3700e-003**	**0.0000**	**12.2035**

3.2 Demolition - 2019

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	7.9000e-004	0.0272	5.3200e-003	7.0000e-005	3.5100e-003	1.0000e-004	3.6100e-003	9.1000e-004	1.0000e-004	1.0000e-003	0.0000	6.7366	6.7366	3.6000e-004	0.0000	6.7454
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.4000e-004	1.4400e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3753	0.3753	1.0000e-005	0.0000	0.3755
Total	**9.8000e-004**	**0.0274**	**6.7600e-003**	**7.0000e-005**	**3.9200e-003**	**1.0000e-004**	**4.0300e-003**	**1.0200e-003**	**1.0000e-004**	**1.1100e-003**	**0.0000**	**7.1118**	**7.1118**	**3.7000e-004**	**0.0000**	**7.1209**

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					7.4600e-003	0.0000	7.4600e-003	1.1300e-003	0.0000	1.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1252	0.0772	1.4000e-004		6.2800e-003	6.2800e-003		5.8400e-003	5.8400e-003	0.0000	12.1192	12.1192	3.3700e-003	0.0000	12.2035
Total	**0.0123**	**0.1252**	**0.0772**	**1.4000e-004**	**7.4600e-003**	**6.2800e-003**	**0.0137**	**1.1300e-003**	**5.8400e-003**	**6.9700e-003**	**0.0000**	**12.1192**	**12.1192**	**3.3700e-003**	**0.0000**	**12.2035**

3.2 Demolition - 2019

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	7.9000e-004	0.0272	5.3200e-003	7.0000e-005	3.5100e-003	1.0000e-004	3.6100e-003	9.1000e-004	1.0000e-004	1.0000e-003	0.0000	6.7366	6.7366	3.6000e-004	0.0000	6.7454
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.4000e-004	1.4400e-003	0.0000	4.1000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3753	0.3753	1.0000e-005	0.0000	0.3755
Total	**9.8000e-004**	**0.0274**	**6.7600e-003**	**7.0000e-005**	**3.9200e-003**	**1.0000e-004**	**4.0300e-003**	**1.0200e-003**	**1.0000e-004**	**1.1100e-003**	**0.0000**	**7.1118**	**7.1118**	**3.7000e-004**	**0.0000**	**7.1209**

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					0.0308	0.0000	0.0308	4.6600e-003	0.0000	4.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2158	0.1414	2.5000e-004		0.0108	0.0108		0.0100	0.0100	0.0000	22.0991	22.0991	6.2400e-003	0.0000	22.2551
Total	**0.0215**	**0.2158**	**0.1414**	**2.5000e-004**	**0.0308**	**0.0108**	**0.0416**	**4.6600e-003**	**0.0100**	**0.0147**	**0.0000**	**22.0991**	**22.0991**	**6.2400e-003**	**0.0000**	**22.2551**

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	1.3500e-003	0.0472	9.4900e-003	1.3000e-004	3.8300e-003	1.5000e-004	3.9800e-003	1.0200e-003	1.5000e-004	1.1700e-003	0.0000	12.3788	12.3788	6.4000e-004	0.0000	12.3948
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.3900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6750	0.6750	2.0000e-005	0.0000	0.6754
Total	**1.6700e-003**	**0.0475**	**0.0119**	**1.4000e-004**	**4.6000e-003**	**1.6000e-004**	**4.7600e-003**	**1.2200e-003**	**1.5000e-004**	**1.3800e-003**	**0.0000**	**13.0538**	**13.0538**	**6.6000e-004**	**0.0000**	**13.0702**

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					0.0139	0.0000	0.0139	2.1000e-003	0.0000	2.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0215	0.2158	0.1414	2.5000e-004		0.0108	0.0108		0.0100	0.0100	0.0000	22.0991	22.0991	6.2400e-003	0.0000	22.2550
Total	**0.0215**	**0.2158**	**0.1414**	**2.5000e-004**	**0.0139**	**0.0108**	**0.0246**	**2.1000e-003**	**0.0100**	**0.0121**	**0.0000**	**22.0991**	**22.0991**	**6.2400e-003**	**0.0000**	**22.2550**

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	1.3500e-003	0.0472	9.4900e-003	1.3000e-004	3.8300e-003	1.5000e-004	3.9800e-003	1.0200e-003	1.5000e-004	1.1700e-003	0.0000	12.3788	12.3788	6.4000e-004	0.0000	12.3948
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.3900e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.8000e-004	2.0000e-004	0.0000	2.1000e-004	0.0000	0.6750	0.6750	2.0000e-005	0.0000	0.6754
Total	**1.6700e-003**	**0.0475**	**0.0119**	**1.4000e-004**	**4.6000e-003**	**1.6000e-004**	**4.7600e-003**	**1.2200e-003**	**1.5000e-004**	**1.3800e-003**	**0.0000**	**13.0538**	**13.0538**	**6.6000e-004**	**0.0000**	**13.0702**

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					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4154	0.4154	1.0000e-005	0.0000	0.4156
Total	**0.0104**	**0.3571**	**0.0732**	**9.6000e-004**	**0.0211**	**1.1500e-003**	**0.0223**	**5.8000e-003**	**1.1000e-003**	**6.9000e-003**	**0.0000**	**93.9895**	**93.9895**	**4.8300e-003**	**0.0000**	**94.1102**

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					0.0118	0.0000	0.0118	6.0600e-003	0.0000	6.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0118**	**5.0900e-003**	**0.0169**	**6.0600e-003**	**4.6900e-003**	**0.0108**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.4000e-004	1.4700e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4154	0.4154	1.0000e-005	0.0000	0.4156
Total	**0.0104**	**0.3571**	**0.0732**	**9.6000e-004**	**0.0211**	**1.1500e-003**	**0.0223**	**5.8000e-003**	**1.1000e-003**	**6.9000e-003**	**0.0000**	**93.9895**	**93.9895**	**4.8300e-003**	**0.0000**	**94.1102**

3.4 Building Construction - 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	0.2438	2.2064	1.9376	3.1000e-003		0.1285	0.1285		0.1208	0.1208	0.0000	266.3515	266.3515	0.0650	0.0000	267.9760
Total	**0.2438**	**2.2064**	**1.9376**	**3.1000e-003**		**0.1285**	**0.1285**		**0.1208**	**0.1208**	**0.0000**	**266.3515**	**266.3515**	**0.0650**	**0.0000**	**267.9760**

3.4 Building Construction - 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	6.3400e-003	0.2222	0.0447	6.0000e-004	0.0128	7.2000e-004	0.0136	3.5300e-003	6.9000e-004	4.2200e-003	0.0000	58.2444	58.2444	3.0000e-003	0.0000	58.3193
Vendor	0.0111	0.3317	0.0834	7.8000e-004	0.0189	1.6200e-003	0.0205	5.4500e-003	1.5500e-003	7.0000e-003	0.0000	75.2731	75.2731	3.8800e-003	0.0000	75.3701
Worker	0.0198	0.0142	0.1469	4.6000e-004	0.0473	3.2000e-004	0.0476	0.0126	2.9000e-004	0.0129	0.0000	41.3984	41.3984	1.0000e-003	0.0000	41.4234
Total	**0.0373**	**0.5681**	**0.2749**	**1.8400e-003**	**0.0789**	**2.6600e-003**	**0.0816**	**0.0216**	**2.5300e-003**	**0.0241**	**0.0000**	**174.9158**	**174.9158**	**7.8800e-003**	**0.0000**	**175.1129**

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	0.2438	2.2064	1.9376	3.1000e-003		0.1285	0.1285		0.1208	0.1208	0.0000	266.3512	266.3512	0.0650	0.0000	267.9757
Total	**0.2438**	**2.2064**	**1.9376**	**3.1000e-003**		**0.1285**	**0.1285**		**0.1208**	**0.1208**	**0.0000**	**266.3512**	**266.3512**	**0.0650**	**0.0000**	**267.9757**

3.4 Building Construction - 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	6.3400e-003	0.2222	0.0447	6.0000e-004	0.0128	7.2000e-004	0.0136	3.5300e-003	6.9000e-004	4.2200e-003	0.0000	58.2444	58.2444	3.0000e-003	0.0000	58.3193
Vendor	0.0111	0.3317	0.0834	7.8000e-004	0.0189	1.6200e-003	0.0205	5.4500e-003	1.5500e-003	7.0000e-003	0.0000	75.2731	75.2731	3.8800e-003	0.0000	75.3701
Worker	0.0198	0.0142	0.1469	4.6000e-004	0.0473	3.2000e-004	0.0476	0.0126	2.9000e-004	0.0129	0.0000	41.3984	41.3984	1.0000e-003	0.0000	41.4234
Total	**0.0373**	**0.5681**	**0.2749**	**1.8400e-003**	**0.0789**	**2.6600e-003**	**0.0816**	**0.0216**	**2.5300e-003**	**0.0241**	**0.0000**	**174.9158**	**174.9158**	**7.8800e-003**	**0.0000**	**175.1129**

3.5 Paving - 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	6.5100e-003	0.0649	0.0676	1.0000e-004		3.5800e-003	3.5800e-003		3.3000e-003	3.3000e-003	0.0000	9.0046	9.0046	2.8300e-003	0.0000	9.0754
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5100e-003**	**0.0649**	**0.0676**	**1.0000e-004**		**3.5800e-003**	**3.5800e-003**		**3.3000e-003**	**3.3000e-003**	**0.0000**	**9.0046**	**9.0046**	**2.8300e-003**	**0.0000**	**9.0754**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	2.7000e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7615	0.7615	2.0000e-005	0.0000	0.7620
Total	**3.6000e-004**	**2.6000e-004**	**2.7000e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7615**	**0.7615**	**2.0000e-005**	**0.0000**	**0.7620**

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	6.5100e-003	0.0649	0.0676	1.0000e-004		3.5800e-003	3.5800e-003		3.3000e-003	3.3000e-003	0.0000	9.0046	9.0046	2.8300e-003	0.0000	9.0753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5100e-003**	**0.0649**	**0.0676**	**1.0000e-004**		**3.5800e-003**	**3.5800e-003**		**3.3000e-003**	**3.3000e-003**	**0.0000**	**9.0046**	**9.0046**	**2.8300e-003**	**0.0000**	**9.0753**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	2.7000e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7615	0.7615	2.0000e-005	0.0000	0.7620
Total	**3.6000e-004**	**2.6000e-004**	**2.7000e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7615**	**0.7615**	**2.0000e-005**	**0.0000**	**0.7620**

3.5 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	3.8300e-003	0.0379	0.0429	7.0000e-005		2.0300e-003	2.0300e-003		1.8700e-003	1.8700e-003	0.0000	5.7297	5.7297	1.8000e-003	0.0000	5.7747
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8300e-003**	**0.0379**	**0.0429**	**7.0000e-005**		**2.0300e-003**	**2.0300e-003**		**1.8700e-003**	**1.8700e-003**	**0.0000**	**5.7297**	**5.7297**	**1.8000e-003**	**0.0000**	**5.7747**

3.5 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5700e-003	1.0000e-005	5.5000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4676	0.4676	1.0000e-005	0.0000	0.4679
Total	**2.1000e-004**	**1.5000e-004**	**1.5700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4676**	**0.4676**	**1.0000e-005**	**0.0000**	**0.4679**

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	3.8300e-003	0.0379	0.0429	7.0000e-005		2.0300e-003	2.0300e-003		1.8700e-003	1.8700e-003	0.0000	5.7297	5.7297	1.8000e-003	0.0000	5.7747
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8300e-003**	**0.0379**	**0.0429**	**7.0000e-005**		**2.0300e-003**	**2.0300e-003**		**1.8700e-003**	**1.8700e-003**	**0.0000**	**5.7297**	**5.7297**	**1.8000e-003**	**0.0000**	**5.7747**

3.5 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.5700e-003	1.0000e-005	5.5000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4676	0.4676	1.0000e-005	0.0000	0.4679
Total	**2.1000e-004**	**1.5000e-004**	**1.5700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.4676**	**0.4676**	**1.0000e-005**	**0.0000**	**0.4679**

3.6 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	1.2774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**1.2793**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6012	0.6012	1.0000e-005	0.0000	0.6015
Total	**2.8000e-004**	**1.9000e-004**	**2.0200e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6012**	**0.6012**	**1.0000e-005**	**0.0000**	**0.6015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**1.2793**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6012	0.6012	1.0000e-005	0.0000	0.6015
Total	**2.8000e-004**	**1.9000e-004**	**2.0200e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6012**	**0.6012**	**1.0000e-005**	**0.0000**	**0.6015**

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	0.5260	2.5063	5.5000	0.0189	1.6064	0.0173	1.6237	0.4312	0.0162	0.4473	0.0000	1,732.5342	1,732.5342	0.0669	0.0000	1,734.2073
Unmitigated	0.5260	2.5063	5.5000	0.0189	1.6064	0.0173	1.6237	0.4312	0.0162	0.4473	0.0000	1,732.5342	1,732.5342	0.0669	0.0000	1,734.2073

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	3,161.00	0.00	0.00	4,316,203	4,316,203
Total	3,161.00	0.00	0.00	4,316,203	4,316,203

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768
Government (Civic Center)	0.576985	0.039376	0.193723	0.112069	0.016317	0.005358	0.017943	0.025814	0.002614	0.002274	0.005874	0.000887	0.000768

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
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
Government (Civic Center)	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
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
Government (Civic Center)	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	241526	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.94347e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	194421	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.75008e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.5562	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Unmitigated	0.5562	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003

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	0.1277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Total	**0.5562**	**1.0000e-005**	**1.3800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.6800e-003**	**2.6800e-003**	**1.0000e-005**	**0.0000**	**2.8600e-003**

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	0.1277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3800e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6800e-003	2.6800e-003	1.0000e-005	0.0000	2.8600e-003
Total	**0.5562**	**1.0000e-005**	**1.3800e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.6800e-003**	**2.6800e-003**	**1.0000e-005**	**0.0000**	**2.8600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.8698	0.7056	0.0167	29.4745
Unmitigated	6.8698	0.7056	0.0167	29.4745

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	6.8698	0.7056	0.0167	29.4745
Total		**6.8698**	**0.7056**	**0.0167**	**29.4745**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	6.8698	0.7056	0.0167	29.4745
Total		**6.8698**	**0.7056**	**0.0167**	**29.4745**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	98.4912	5.8207	0.0000	244.0078
Unmitigated	98.4912	5.8207	0.0000	244.0078

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Total		**98.4912**	**5.8207**	**0.0000**	**244.0078**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Total		**98.4912**	**5.8207**	**0.0000**	**244.0078**

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
Emergency Generator	1	0	50	591	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0242	0.0678	0.0618	1.2000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	11.2526	11.2526	1.5800e-003	0.0000	11.2920
Total	**0.0242**	**0.0678**	**0.0618**	**1.2000e-004**		**3.5700e-003**	**3.5700e-003**		**3.5700e-003**	**3.5700e-003**	**0.0000**	**11.2526**	**11.2526**	**1.5800e-003**	**0.0000**	**11.2920**

11.0 Vegetation

Sunnyvale Phase I

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	109.00	1000sqft	2.50	109,000.00	0
Government Office Building	12.00	1000sqft	0.28	12,000.00	0
Enclosed Parking with Elevator	41.22	1000sqft	0.95	41,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Winter 2019/2020, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - 109,000 sf city hall, 12,000 sf EOC, 41,216 sf underground garage

Construction Phase - Start Winter 2019/2020 for 18 months

Trips and VMT - Total Haul trips: Demolition 497; Grading 2,442; Construction 1,520 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - 96,250 sf

Grading - Export of 24,424 of soil from excavation, default acres graded

Vehicle Trips - Revised trip rates per Kimley Horn

Road Dust -

Energy Use - No natural gas use

Solid Waste - City Hall: approximately 74.7 cy of waste/week, 250 lbs/ cy, total of 485.2 tons/year, EOC: 26.44 cy/ week, total of 39.67 ton/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph

Area Mitigation -

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 441kW (591 hp) generator for City Hall; 222kW (297 hp) generator for EOC; same fuel as existing units (diesel), assumes 50 hours a year

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	34.00
tblConstructionPhase	NumDays	230.00	334.00
tblConstructionPhase	NumDays	8.00	40.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24NG	16.31	0.00
tblEnergyUse	T24NG	16.31	0.00
tblGrading	MaterialExported	0.00	24,424.00
tblLandUse	LandUseSquareFeet	41,220.00	41,216.00

tblSolidWaste	SolidWasteGenerationRate	621.30	485.20
tblSolidWaste	SolidWasteGenerationRate	11.16	39.67
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	297.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	591.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	438.00	497.00
tblTripsAndVMT	HaulingTripNumber	3,053.00	2,442.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,520.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	0.00	15.46
tblVehicleTrips	WD_TR	27.92	29.00
tblVehicleTrips	WD_TR	68.93	15.46

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	0.3569	3.8349	2.7204	6.6900e-003	0.2852	0.1656	0.4508	0.1034	0.1550	0.2584	0.0000	604.4374	604.4374	0.1013	0.0000	606.9696
2021	1.5633	1.4303	1.2569	2.7900e-003	0.0526	0.0648	0.1174	0.0142	0.0610	0.0752	0.0000	248.3628	248.3628	0.0406	0.0000	249.3772
Maximum	**1.5633**	**3.8349**	**2.7204**	**6.6900e-003**	**0.2852**	**0.1656**	**0.4508**	**0.1034**	**0.1550**	**0.2584**	**0.0000**	**604.4374**	**604.4374**	**0.1013**	**0.0000**	**606.9696**

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	0.3569	3.8349	2.7204	6.6900e-003	0.1863	0.1656	0.3519	0.0623	0.1550	0.2173	0.0000	604.4370	604.4370	0.1013	0.0000	606.9692
2021	1.5633	1.4303	1.2569	2.7900e-003	0.0526	0.0648	0.1174	0.0142	0.0610	0.0752	0.0000	248.3626	248.3626	0.0406	0.0000	249.3770
Maximum	**1.5633**	**3.8349**	**2.7204**	**6.6900e-003**	**0.1863**	**0.1656**	**0.3519**	**0.0623**	**0.1550**	**0.2173**	**0.0000**	**604.4370**	**604.4370**	**0.1013**	**0.0000**	**606.9692**

	ROG	NOx	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**	**29.28**	**0.00**	**17.41**	**34.95**	**0.00**	**12.32**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	1.5288	1.5288
2	4-1-2020	6-30-2020	0.9197	0.9197
3	7-1-2020	9-30-2020	0.8588	0.8588
4	10-1-2020	12-31-2020	0.8625	0.8625
5	1-1-2021	3-31-2021	0.7658	0.7658
6	4-1-2021	6-30-2021	2.1697	2.1697
7	7-1-2021	9-30-2021	0.0389	0.0389
		Highest	2.1697	2.1697

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0364	0.1018	0.0929	1.8000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	16.9074	16.9074	2.3700e-003	0.0000	16.9667
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	0.0000	7.6261	0.7833	0.0185	32.7194
Total	**1.1685**	**2.3252**	**5.5247**	**0.0196**	**1.7077**	**0.0214**	**1.7292**	**0.4583**	**0.0204**	**0.4787**	**114.1700**	**1,799.6284**	**1,913.7984**	**7.1468**	**0.0185**	**2,097.9786**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Stationary	0.0364	0.1018	0.0929	1.8000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	16.9074	16.9074	2.3700e-003	0.0000	16.9667
Waste						0.0000	0.0000		0.0000	0.0000	106.5439	0.0000	106.5439	6.2966	0.0000	263.9579
Water						0.0000	0.0000		0.0000	0.0000	7.6261	0.0000	7.6261	0.7833	0.0185	32.7194
Total	**1.1685**	**2.3252**	**5.5247**	**0.0196**	**1.7077**	**0.0214**	**1.7292**	**0.4583**	**0.0204**	**0.4787**	**114.1700**	**1,799.6284**	**1,913.7984**	**7.1468**	**0.0185**	**2,097.9786**

	ROG	NOx	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

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Grading	Grading	1/28/2020	3/23/2020	5	40	
3	Building Construction	Building Construction	3/23/2020	7/1/2021	5	334	
4	Paving	Paving	3/23/2020	4/15/2020	5	18	
5	Architectural Coating	Architectural Coating	5/16/2021	7/1/2021	5	34	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.95

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 181,500; Non-Residential Outdoor: 60,500; Striped Parking Area: 2,473 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase I - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	497.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	2,442.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	56.00	27.00	1,520.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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					0.0474	0.0000	0.0474	7.1700e-003	0.0000	7.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2386
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0474**	**0.0166**	**0.0640**	**7.1700e-003**	**0.0154**	**0.0226**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2386**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.0213	0.0000	0.0213	3.2300e-003	0.0000	3.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0331	0.3320	0.2175	3.9000e-004		0.0166	0.0166		0.0154	0.0154	0.0000	33.9986	33.9986	9.6000e-003	0.0000	34.2385
Total	**0.0331**	**0.3320**	**0.2175**	**3.9000e-004**	**0.0213**	**0.0166**	**0.0379**	**3.2300e-003**	**0.0154**	**0.0187**	**0.0000**	**33.9986**	**33.9986**	**9.6000e-003**	**0.0000**	**34.2385**

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	2.0700e-003	0.0727	0.0146	2.0000e-004	4.2000e-003	2.3000e-004	4.4300e-003	1.1500e-003	2.2000e-004	1.3800e-003	0.0000	19.0444	19.0444	9.8000e-004	0.0000	19.0689
Vendor	1.5000e-004	4.6200e-003	1.1600e-003	1.0000e-005	2.6000e-004	2.0000e-005	2.8000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0473	1.0473	5.0000e-005	0.0000	1.0486
Worker	5.0000e-004	3.6000e-004	3.6800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0384	1.0384	3.0000e-005	0.0000	1.0391
Total	**2.7200e-003**	**0.0776**	**0.0194**	**2.2000e-004**	**5.6500e-003**	**2.6000e-004**	**5.9000e-003**	**1.5500e-003**	**2.5000e-004**	**1.8000e-003**	**0.0000**	**21.1301**	**21.1301**	**1.0600e-003**	**0.0000**	**21.1566**

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					0.1324	0.0000	0.1324	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.5277	0.3211	5.9000e-004		0.0255	0.0255		0.0234	0.0234	0.0000	52.1175	52.1175	0.0169	0.0000	52.5389
Total	**0.0486**	**0.5277**	**0.3211**	**5.9000e-004**	**0.1324**	**0.0255**	**0.1579**	**0.0676**	**0.0234**	**0.0910**	**0.0000**	**52.1175**	**52.1175**	**0.0169**	**0.0000**	**52.5389**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

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					0.0596	0.0000	0.0596	0.0304	0.0000	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.5277	0.3211	5.9000e-004		0.0255	0.0255		0.0234	0.0234	0.0000	52.1174	52.1174	0.0169	0.0000	52.5388
Total	**0.0486**	**0.5277**	**0.3211**	**5.9000e-004**	**0.0596**	**0.0255**	**0.0851**	**0.0304**	**0.0234**	**0.0538**	**0.0000**	**52.1174**	**52.1174**	**0.0169**	**0.0000**	**52.5388**

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	0.0102	0.3570	0.0717	9.6000e-004	0.0206	1.1500e-003	0.0218	5.6700e-003	1.1000e-003	6.7700e-003	0.0000	93.5742	93.5742	4.8200e-003	0.0000	93.6946
Vendor	3.1000e-004	9.2300e-003	2.3200e-003	2.0000e-005	5.2000e-004	5.0000e-005	5.7000e-004	1.5000e-004	4.0000e-005	1.9000e-004	0.0000	2.0946	2.0946	1.1000e-004	0.0000	2.0973
Worker	9.9000e-004	7.1000e-004	7.3700e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.5000e-004	0.0000	2.0768	2.0768	5.0000e-005	0.0000	2.0781
Total	**0.0115**	**0.3669**	**0.0814**	**1.0000e-003**	**0.0235**	**1.2200e-003**	**0.0247**	**6.4500e-003**	**1.1500e-003**	**7.6100e-003**	**0.0000**	**97.7456**	**97.7456**	**4.9800e-003**	**0.0000**	**97.8700**

3.4 Building Construction - 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	0.2162	1.9570	1.7186	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2422	236.2422	0.0576	0.0000	237.6831
Total	**0.2162**	**1.9570**	**1.7186**	**2.7500e-003**		**0.1139**	**0.1139**		**0.1071**	**0.1071**	**0.0000**	**236.2422**	**236.2422**	**0.0576**	**0.0000**	**237.6831**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

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	0.2162	1.9570	1.7185	2.7500e-003		0.1139	0.1139		0.1071	0.1071	0.0000	236.2419	236.2419	0.0576	0.0000	237.6828
Total	**0.2162**	**1.9570**	**1.7185**	**2.7500e-003**		**0.1139**	**0.1139**		**0.1071**	**0.1071**	**0.0000**	**236.2419**	**236.2419**	**0.0576**	**0.0000**	**237.6828**

3.4 Building Construction - 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	3.8700e-003	0.1357	0.0273	3.7000e-004	0.0116	4.4000e-004	0.0120	3.0700e-003	4.2000e-004	3.4900e-003	0.0000	35.5744	35.5744	1.8300e-003	0.0000	35.6202
Vendor	0.0107	0.3178	0.0799	7.5000e-004	0.0181	1.5500e-003	0.0196	5.2200e-003	1.4800e-003	6.7100e-003	0.0000	72.1051	72.1051	3.7200e-003	0.0000	72.1980
Worker	0.0189	0.0136	0.1403	4.4000e-004	0.0451	3.0000e-004	0.0454	0.0120	2.8000e-004	0.0123	0.0000	39.5431	39.5431	9.6000e-004	0.0000	39.5670
Total	**0.0335**	**0.4670**	**0.2475**	**1.5600e-003**	**0.0748**	**2.2900e-003**	**0.0771**	**0.0203**	**2.1800e-003**	**0.0225**	**0.0000**	**147.2225**	**147.2225**	**6.5100e-003**	**0.0000**	**147.3852**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5642	150.5642	0.0363	0.0000	151.4723
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5642**	**150.5642**	**0.0363**	**0.0000**	**151.4723**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

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	0.1236	1.1331	1.0774	1.7500e-003		0.0623	0.0623		0.0586	0.0586	0.0000	150.5641	150.5641	0.0363	0.0000	151.4722
Total	**0.1236**	**1.1331**	**1.0774**	**1.7500e-003**		**0.0623**	**0.0623**		**0.0586**	**0.0586**	**0.0000**	**150.5641**	**150.5641**	**0.0363**	**0.0000**	**151.4722**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3300e-003	0.0798	0.0170	2.3000e-004	0.0109	2.5000e-004	0.0111	2.8100e-003	2.4000e-004	3.0500e-003	0.0000	22.3792	22.3792	1.1400e-003	0.0000	22.4077
Vendor	5.5700e-003	0.1833	0.0458	4.7000e-004	0.0115	4.0000e-004	0.0119	3.3300e-003	3.8000e-004	3.7100e-003	0.0000	45.5149	45.5149	2.2400e-003	0.0000	45.5708
Worker	0.0112	7.7100e-003	0.0816	2.7000e-004	0.0288	1.9000e-004	0.0290	7.6500e-003	1.7000e-004	7.8300e-003	0.0000	24.3148	24.3148	5.5000e-004	0.0000	24.3285
Total	**0.0191**	**0.2709**	**0.1444**	**9.7000e-004**	**0.0511**	**8.4000e-004**	**0.0520**	**0.0138**	**7.9000e-004**	**0.0146**	**0.0000**	**92.2089**	**92.2089**	**3.9300e-003**	**0.0000**	**92.3070**

3.5 Paving - 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	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

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	0.0107	0.1062	0.1105	1.7000e-004		5.8600e-003	5.8600e-003		5.4000e-003	5.4000e-003	0.0000	14.7348	14.7348	4.6300e-003	0.0000	14.8506
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.1062**	**0.1105**	**1.7000e-004**		**5.8600e-003**	**5.8600e-003**		**5.4000e-003**	**5.4000e-003**	**0.0000**	**14.7348**	**14.7348**	**4.6300e-003**	**0.0000**	**14.8506**

3.5 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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-004	4.3000e-004	4.4200e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2461	1.2461	3.0000e-005	0.0000	1.2469
Total	**6.0000e-004**	**4.3000e-004**	**4.4200e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2461**	**1.2461**	**3.0000e-005**	**0.0000**	**1.2469**

3.6 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	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4201**	**0.0260**	**0.0309**	**5.0000e-005**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
Total	**1.4201**	**0.0260**	**0.0309**	**5.0000e-005**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**4.3405**	**4.3405**	**3.0000e-004**	**0.0000**	**4.3480**

3.6 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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	4.0000e-004	4.1900e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2491	1.2491	3.0000e-005	0.0000	1.2498
Total	**5.7000e-004**	**4.0000e-004**	**4.1900e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2491**	**1.2491**	**3.0000e-005**	**0.0000**	**1.2498**

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	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316
Unmitigated	0.5151	2.2234	5.4303	0.0194	1.7077	0.0161	1.7238	0.4583	0.0150	0.4733	0.0000	1,782.7181	1,782.7181	0.0645	0.0000	1,784.3316

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	3,161.00	0.00	0.00	4,316,203	4,316,203
Government Office Building	185.52	185.52	0.00	272,695	272,695
Total	3,346.52	185.52	0.00	4,588,899	4,588,899

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government (Civic Center)	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749
Government Office Building	0.578638	0.038775	0.193686	0.110919	0.015677	0.005341	0.018293	0.026358	0.002641	0.002200	0.005832	0.000891	0.000749

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
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
Government (Civic Center)	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
Government Office Building	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
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
Government (Civic Center)	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
Government Office Building	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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	241526	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.94347e +006	0.0000	0.0000	0.0000	0.0000
Government Office Building	213960	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	194505	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.75017e +006	0.0000	0.0000	0.0000	0.0000
Government Office Building	192531	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Unmitigated	0.6170	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

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	0.1416					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4752					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9000e-003	2.9000e-003	1.0000e-005	0.0000	3.0900e-003
Total	**0.6170**	**1.0000e-005**	**1.4900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9000e-003**	**2.9000e-003**	**1.0000e-005**	**0.0000**	**3.0900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.6261	0.7833	0.0185	32.7194
Unmitigated	7.6261	0.7833	0.0185	32.7194

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	6.8698	0.7056	0.0167	29.4745
Government Office Building	2.38392 / 1.46111	0.7563	0.0777	1.8300e-003	3.2449
Total		**7.6261**	**0.7833**	**0.0185**	**32.7194**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	21.6539 / 13.2717	6.8698	0.7056	0.0167	29.4745
Government Office Building	2.38392 / 1.46111	0.7563	0.0777	1.8300e-003	3.2449
Total		**7.6261**	**0.7833**	**0.0185**	**32.7194**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	106.5439	6.2966	0.0000	263.9579
Unmitigated	106.5439	6.2966	0.0000	263.9579

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	485.2	98.4912	5.8207	0.0000	244.0078
Government Office Building	39.67	8.0527	0.4759	0.0000	19.9501
Total		**106.5439**	**6.2966**	**0.0000**	**263.9579**

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
Emergency Generator	1	0	50	297	0.73	Diesel
Emergency Generator	1	0	50	591	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0122	0.0341	0.0311	6.0000e-005		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	5.6548	5.6548	7.9000e-004	0.0000	5.6747
Emergency Generator - Diesel (300 - 600 HP)	0.0242	0.0678	0.0618	1.2000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003	0.0000	11.2526	11.2526	1.5800e-003	0.0000	11.2920
Total	**0.0364**	**0.1018**	**0.0929**	**1.8000e-004**		**5.3600e-003**	**5.3600e-003**		**5.3600e-003**	**5.3600e-003**	**0.0000**	**16.9074**	**16.9074**	**2.3700e-003**	**0.0000**	**16.9667**

11.0 Vegetation

Sunnyvale Phase II

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	120.00	1000sqft	2.75	120,000.00	0
Enclosed Parking with Elevator	48.76	1000sqft	1.12	48,755.00	0
Enclosed Parking with Elevator	38.02	1000sqft	0.87	38,016.00	0
Parking Lot	80.68	1000sqft	1.85	80,684.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2025
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Jan 1, 2023, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - Library 120,000 sf, two underground parking structures 48,755 sf and 38,016 sf, aboveground parking lot 80,684

Construction Phase - Start Jan 1, 2023, 18 month duration

Trips and VMT - Total Haul trips: Demolition 315; Grading 5,142; Construction 1,507 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - Demolish 60,900 sf

Grading - spoils 51,420 cy, defaul acres

Vehicle Trips - Revised trip generation per Kimley Horn

Energy Use - No natural gas use

Solid Waste - Library: approximately 190 cy of waste/week, 250 lbs/ cy, total of 285.2 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph offroad speed

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 98kW (131 hp) generator for Library; same fuel as existing units (diesel), assumes 50 hours a year

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	33.00
tblConstructionPhase	NumDays	230.00	332.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	16.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	T24NG	19.71	0.00
tblGrading	MaterialExported	0.00	51,420.00
tblLandUse	LandUseSquareFeet	38,020.00	38,016.00
tblLandUse	LandUseSquareFeet	48,760.00	48,755.00
tblLandUse	LandUseSquareFeet	80,680.00	80,684.00
tblSolidWaste	SolidWasteGenerationRate	110.51	285.20
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	131.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	277.00	315.00
tblTripsAndVMT	HaulingTripNumber	6,428.00	5,142.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,507.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	46.55	20.00
tblVehicleTrips	SU_TR	25.49	10.95
tblVehicleTrips	WD_TR	56.24	24.17

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					
2023	0.2866	3.0203	2.7514	8.3500e-003	0.3539	0.1019	0.4557	0.1240	0.0954	0.2194	0.0000	763.3742	763.3742	0.1044	0.0000	765.9829
2024	1.5771	1.1940	1.3153	3.3700e-003	0.0967	0.0419	0.1387	0.0261	0.0395	0.0656	0.0000	303.0379	303.0379	0.0412	0.0000	304.0677
Maximum	**1.5771**	**3.0203**	**2.7514**	**8.3500e-003**	**0.3539**	**0.1019**	**0.4557**	**0.1240**	**0.0954**	**0.2194**	**0.0000**	**763.3742**	**763.3742**	**0.1044**	**0.0000**	**765.9829**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2866	3.0203	2.7514	8.3500e-003	0.2637	0.1019	0.3656	0.0842	0.0954	0.1796	0.0000	763.3738	763.3738	0.1044	0.0000	765.9825
2024	1.5771	1.1940	1.3153	3.3700e-003	0.0967	0.0419	0.1387	0.0261	0.0395	0.0656	0.0000	303.0378	303.0378	0.0412	0.0000	304.0675
Maximum	**1.5771**	**3.0203**	**2.7514**	**8.3500e-003**	**0.2637**	**0.1019**	**0.3656**	**0.0842**	**0.0954**	**0.1796**	**0.0000**	**763.3738**	**763.3738**	**0.1044**	**0.0000**	**765.9825**

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**20.01**	**0.00**	**15.17**	**26.50**	**0.00**	**13.96**	**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	**1-1-2023**	**3-31-2023**	1.2024	1.2024
2	**4-1-2023**	**6-30-2023**	0.7456	0.7456
3	**7-1-2023**	**9-30-2023**	0.6868	0.6868
4	**10-1-2023**	**12-31-2023**	0.6901	0.6901
5	**1-1-2024**	**3-31-2024**	0.6454	0.6454
6	**4-1-2024**	**6-30-2024**	2.1093	2.1093
7	**7-1-2024**	**9-30-2024**	0.0389	0.0389
		Highest	2.1093	2.1093

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	5.3700e-003	0.0150	0.0195	3.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	2.4942	2.4942	3.5000e-004	0.0000	2.5030
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275
Water						0.0000	0.0000		0.0000	0.0000	1.1912	0.0000	1.1912	0.1224	2.8900e-003	5.1107
Total	**1.1060**	**2.1667**	**4.7664**	**0.0177**	**1.6409**	**0.0155**	**1.6564**	**0.4403**	**0.0145**	**0.4548**	**59.0842**	**1,632.5953**	**1,691.6795**	**3.6026**	**2.8900e-003**	**1,782.6047**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Stationary	5.3700e-003	0.0150	0.0195	3.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	2.4942	2.4942	3.5000e-004	0.0000	2.5030
Waste						0.0000	0.0000		0.0000	0.0000	57.8930	0.0000	57.8930	3.4214	0.0000	143.4275
Water						0.0000	0.0000		0.0000	0.0000	1.1912	0.0000	1.1912	0.1224	2.8900e-003	5.1107
Total	**1.1060**	**2.1667**	**4.7664**	**0.0177**	**1.6409**	**0.0155**	**1.6564**	**0.4403**	**0.0145**	**0.4548**	**59.0842**	**1,632.5953**	**1,691.6795**	**3.6026**	**2.8900e-003**	**1,782.6047**

	ROG	NOx	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

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2023	1/28/2023	5	20	
2	Grading	Grading	1/28/2023	3/24/2023	5	40	
3	Building Construction	Building Construction	3/24/2023	7/1/2024	5	332	
4	Paving	Paving	3/24/2023	4/16/2023	5	16	
5	Architectural Coating	Architectural Coating	5/16/2024	7/1/2024	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 3.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 180,000; Non-Residential Outdoor: 60,000; Striped Parking Area: 10,047 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase II - San Francisco Bay Area Air Basin, Annual

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	4.00	315.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	4.00	5,142.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	121.00	47.00	1,507.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0300	0.0000	0.0300	4.5400e-003	0.0000	4.5400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9921	33.9921	9.5200e-003	0.0000	34.2301
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0300**	**9.9800e-003**	**0.0400**	**4.5400e-003**	**9.2800e-003**	**0.0138**	**0.0000**	**33.9921**	**33.9921**	**9.5200e-003**	**0.0000**	**34.2301**

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187
Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

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					0.0135	0.0000	0.0135	2.0400e-003	0.0000	2.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0227	0.2148	0.1964	3.9000e-004		9.9800e-003	9.9800e-003		9.2800e-003	9.2800e-003	0.0000	33.9920	33.9920	9.5200e-003	0.0000	34.2300
Total	**0.0227**	**0.2148**	**0.1964**	**3.9000e-004**	**0.0135**	**9.9800e-003**	**0.0235**	**2.0400e-003**	**9.2800e-003**	**0.0113**	**0.0000**	**33.9920**	**33.9920**	**9.5200e-003**	**0.0000**	**34.2300**

3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-004	0.0261	8.0700e-003	1.2000e-004	2.6600e-003	5.0000e-005	2.7100e-003	7.3000e-004	4.0000e-005	7.8000e-004	0.0000	11.3053	11.3053	5.3000e-004	0.0000	11.3187
Vendor	9.0000e-005	3.0500e-003	8.8000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9984	0.9984	4.0000e-005	0.0000	0.9995
Worker	4.0000e-004	2.6000e-004	2.8400e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9283	0.9283	2.0000e-005	0.0000	0.9287
Total	**1.2900e-003**	**0.0294**	**0.0118**	**1.4000e-004**	**4.1100e-003**	**6.0000e-005**	**4.1700e-003**	**1.1300e-003**	**5.0000e-005**	**1.1800e-003**	**0.0000**	**13.2320**	**13.2320**	**5.9000e-004**	**0.0000**	**13.2469**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1340	0.0000	0.1340	0.0678	0.0000	0.0678	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3587	0.2950	5.9000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	52.1212	52.1212	0.0169	0.0000	52.5427
Total	**0.0342**	**0.3587**	**0.2950**	**5.9000e-004**	**0.1340**	**0.0155**	**0.1495**	**0.0678**	**0.0143**	**0.0821**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5427**

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

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					0.0603	0.0000	0.0603	0.0305	0.0000	0.0305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0342	0.3587	0.2950	5.9000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	52.1212	52.1212	0.0169	0.0000	52.5426
Total	**0.0342**	**0.3587**	**0.2950**	**5.9000e-004**	**0.0603**	**0.0155**	**0.0758**	**0.0305**	**0.0143**	**0.0448**	**0.0000**	**52.1212**	**52.1212**	**0.0169**	**0.0000**	**52.5426**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0130	0.4266	0.1317	1.9000e-003	0.0434	7.7000e-004	0.0442	0.0120	7.3000e-004	0.0127	0.0000	184.5462	184.5462	8.7300e-003	0.0000	184.7644
Vendor	1.8000e-004	6.1000e-003	1.7600e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9968	1.9968	8.0000e-005	0.0000	1.9989
Worker	8.0000e-004	5.1000e-004	5.6900e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3900e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.8566	1.8566	4.0000e-005	0.0000	1.8575
Total	**0.0140**	**0.4332**	**0.1391**	**1.9400e-003**	**0.0463**	**7.9000e-004**	**0.0471**	**0.0127**	**7.5000e-004**	**0.0135**	**0.0000**	**188.3996**	**188.3996**	**8.8500e-003**	**0.0000**	**188.6207**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1581	1.4457	1.6325	2.7100e-003		0.0703	0.0703		0.0662	0.0662	0.0000	232.9638	232.9638	0.0554	0.0000	234.3492
Total	**0.1581**	**1.4457**	**1.6325**	**2.7100e-003**		**0.0703**	**0.0703**		**0.0662**	**0.0662**	**0.0000**	**232.9638**	**232.9638**	**0.0554**	**0.0000**	**234.3492**

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

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	0.1581	1.4457	1.6325	2.7100e-003		0.0703	0.0703		0.0662	0.0662	0.0000	232.9635	232.9635	0.0554	0.0000	234.3490
Total	**0.1581**	**1.4457**	**1.6325**	**2.7100e-003**		**0.0703**	**0.0703**		**0.0662**	**0.0662**	**0.0000**	**232.9635**	**232.9635**	**0.0554**	**0.0000**	**234.3490**

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0757	0.0234	3.4000e-004	0.0115	1.4000e-004	0.0116	3.0400e-003	1.3000e-004	3.1700e-003	0.0000	32.7449	32.7449	1.5500e-003	0.0000	32.7837
Vendor	0.0105	0.3603	0.1037	1.2200e-003	0.0310	4.1000e-004	0.0314	8.9600e-003	4.0000e-004	9.3600e-003	0.0000	117.9004	117.9004	4.9100e-003	0.0000	118.0231
Worker	0.0325	0.0208	0.2306	8.3000e-004	0.0961	6.0000e-004	0.0967	0.0256	5.5000e-004	0.0261	0.0000	75.2560	75.2560	1.4600e-003	0.0000	75.2926
Total	**0.0453**	**0.4567**	**0.3576**	**2.3900e-003**	**0.1385**	**1.1500e-003**	**0.1397**	**0.0376**	**1.0800e-003**	**0.0387**	**0.0000**	**225.9014**	**225.9014**	**7.9200e-003**	**0.0000**	**226.0993**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0964	0.8806	1.0589	1.7700e-003		0.0402	0.0402		0.0378	0.0378	0.0000	151.8612	151.8612	0.0359	0.0000	152.7589
Total	**0.0964**	**0.8806**	**1.0589**	**1.7700e-003**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**151.8612**	**151.8612**	**0.0359**	**0.0000**	**152.7589**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

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	0.0964	0.8806	1.0589	1.7700e-003		0.0402	0.0402		0.0378	0.0378	0.0000	151.8610	151.8610	0.0359	0.0000	152.7588
Total	**0.0964**	**0.8806**	**1.0589**	**1.7700e-003**		**0.0402**	**0.0402**		**0.0378**	**0.0378**	**0.0000**	**151.8610**	**151.8610**	**0.0359**	**0.0000**	**152.7588**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4900e-003	0.0483	0.0153	2.2000e-004	0.0108	9.0000e-005	0.0109	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	21.1820	21.1820	1.0100e-003	0.0000	21.2071
Vendor	6.6200e-003	0.2322	0.0650	7.9000e-004	0.0202	2.7000e-004	0.0205	5.8400e-003	2.5000e-004	6.0900e-003	0.0000	76.3220	76.3220	3.1300e-003	0.0000	76.4003
Worker	0.0199	0.0122	0.1392	5.2000e-004	0.0626	3.8000e-004	0.0630	0.0167	3.5000e-004	0.0170	0.0000	47.1063	47.1063	8.6000e-004	0.0000	47.1278
Total	**0.0280**	**0.2927**	**0.2195**	**1.5300e-003**	**0.0936**	**7.4000e-004**	**0.0943**	**0.0253**	**6.8000e-004**	**0.0260**	**0.0000**	**144.6102**	**144.6102**	**5.0000e-003**	**0.0000**	**144.7352**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0815	0.1167	1.8000e-004		4.0800e-003	4.0800e-003		3.7600e-003	3.7600e-003	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0815**	**0.1167**	**1.8000e-004**		**4.0800e-003**	**4.0800e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2600e-003	0.0815	0.1167	1.8000e-004		4.0800e-003	4.0800e-003		3.7600e-003	3.7600e-003	0.0000	16.0215	16.0215	5.1800e-003	0.0000	16.1510
Paving	2.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0815**	**0.1167**	**1.8000e-004**		**4.0800e-003**	**4.0800e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**16.0215**	**16.0215**	**5.1800e-003**	**0.0000**	**16.1510**

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.0000e-004	2.2800e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.7426	0.7426	1.0000e-005	0.0000	0.7430
Total	**3.2000e-004**	**2.0000e-004**	**2.2800e-003**	**1.0000e-005**	**9.5000e-004**	**1.0000e-005**	**9.5000e-004**	**2.5000e-004**	**1.0000e-005**	**2.6000e-004**	**0.0000**	**0.7426**	**0.7426**	**1.0000e-005**	**0.0000**	**0.7430**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0201	0.0299	5.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4517**	**0.0201**	**0.0299**	**5.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9800e-003	0.0201	0.0299	5.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	4.2129	4.2129	2.4000e-004	0.0000	4.2188
Total	**1.4517**	**0.0201**	**0.0299**	**5.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**4.2129**	**4.2129**	**2.4000e-004**	**0.0000**	**4.2188**

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	6.1000e-004	6.9500e-003	3.0000e-005	3.1300e-003	2.0000e-005	3.1500e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.3537	2.3537	4.0000e-005	0.0000	2.3548
Total	**1.0000e-003**	**6.1000e-004**	**6.9500e-003**	**3.0000e-005**	**3.1300e-003**	**2.0000e-005**	**3.1500e-003**	**8.3000e-004**	**2.0000e-005**	**8.5000e-004**	**0.0000**	**2.3537**	**2.3537**	**4.0000e-005**	**0.0000**	**2.3548**

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	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580
Unmitigated	0.4760	2.1517	4.7443	0.0177	1.6409	0.0147	1.6556	0.4403	0.0137	0.4540	0.0000	1,630.0960	1,630.0960	0.0585	0.0000	1,631.5580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Library	2,900.40	2,400.00	1314.00	4,410,502	4,410,502
Parking Lot	0.00	0.00	0.00		
Total	2,900.40	2,400.00	1,314.00	4,410,502	4,410,502

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	44	44	12
Parking Lot	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
Enclosed Parking with Elevator	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Library	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Parking Lot	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
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
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
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
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	222774	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	285704	0.0000	0.0000	0.0000	0.0000
Library	991200	0.0000	0.0000	0.0000	0.0000
Parking Lot	28239.4	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	179432	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	230155	0.0000	0.0000	0.0000	0.0000
Library	939571	0.0000	0.0000	0.0000	0.0000
Parking Lot	28114.4	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Unmitigated	0.6246	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

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	0.1449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4795					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.6300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.1400e-003	5.1400e-003	1.0000e-005	0.0000	5.4700e-003
Total	**0.6246**	**2.0000e-005**	**2.6300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.1400e-003**	**5.1400e-003**	**1.0000e-005**	**0.0000**	**5.4700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1912	0.1224	2.8900e-003	5.1107
Unmitigated	1.1912	0.1224	2.8900e-003	5.1107

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Library	3.75467 / 5.87269	1.1912	0.1224	2.8900e-003	5.1107
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1912**	**0.1224**	**2.8900e-003**	**5.1107**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Library	3.75467 / 5.87269	1.1912	0.1224	2.8900e-003	5.1107
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.1912**	**0.1224**	**2.8900e-003**	**5.1107**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	57.8930	3.4214	0.0000	143.4275
Unmitigated	57.8930	3.4214	0.0000	143.4275

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Library	285.2	57.8930	3.4214	0.0000	143.4275
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**57.8930**	**3.4214**	**0.0000**	**143.4275**

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
Emergency Generator	1	0	50	131	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (100 - 175 HP)	5.3700e-003	0.0150	0.0195	3.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	2.4942	2.4942	3.5000e-004	0.0000	2.5030
Total	**5.3700e-003**	**0.0150**	**0.0195**	**3.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.9000e-004**	**7.9000e-004**	**0.0000**	**2.4942**	**2.4942**	**3.5000e-004**	**0.0000**	**2.5030**

11.0 Vegetation

Sunnyvale Phase III

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	65.00	1000sqft	1.49	65,000.00	0
Enclosed Parking with Elevator	48.74	1000sqft	1.12	48,740.00	0
Parking Lot	12.20	1000sqft	0.28	12,197.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2035
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Project Characteristics - Start Jan 1, 2033, 0 carbon emissions from Silicon Valley Clean Energy 100% renewable sources, does not need to account for indirect sources

Land Use - Public Safety Headquarters 65,000 sf, a use more similar to police station is not available, Government Civic Center is used as a proxy, 48,740 sf underground garage, 12,197 sf secure aboveground lot

Construction Phase - Start date Jan 1, 2033 duration of 18 months

Trips and VMT - Total Haul trips: Demolition 274; Grading 2,888; Construction 816 (calculated using waste factor, add material hauling, assuming a 10cy/15 ton haul truck), 4 one-way daily vendor trips grading/ demolition (water and fuel truck)

Demolition - 53,000 sf

Grading - Spoils 28,883 cy, default grading size

Vehicle Trips - Revised trip generation per Kimley Horn

Energy Use - No natural gas use

Solid Waste - Assumes approximately 1,719 cy of waste a year, 250 lbs per cy, total of 214.86 tons/year

Construction Off-road Equipment Mitigation - Water 2x, 15 mph

Energy Mitigation - Exceed Title 24 by 29%, 500kWh of PV

Stationary Sources - Emergency Generators and Fire Pumps - 1,205 kw (1,616 hp) generator, diesel fuel, operates one day a year each

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	33.00
tblConstructionPhase	NumDays	220.00	332.00
tblConstructionPhase	NumDays	6.00	40.00
tblConstructionPhase	NumDays	10.00	17.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24NG	16.31	0.00
tblGrading	MaterialExported	0.00	28,883.00
tblLandUse	LandUseSquareFeet	12,200.00	12,197.00
tblSolidWaste	SolidWasteGenerationRate	370.50	214.86
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,616.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	24.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	241.00	274.00
tblTripsAndVMT	HaulingTripNumber	3,610.00	2,888.00
tblTripsAndVMT	HaulingTripNumber	0.00	816.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	0.00	15.38
tblVehicleTrips	WD_TR	27.92	15.38

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					
2033	0.1913	1.4604	1.9619	5.8300e-003	0.2467	0.0228	0.2696	0.0955	0.0228	0.1183	0.0000	513.5659	513.5659	0.0221	0.0000	514.1180
2034	0.8644	0.6455	0.9799	2.4400e-003	0.0396	9.7000e-003	0.0493	0.0107	9.6900e-003	0.0204	0.0000	209.0652	209.0652	8.5600e-003	0.0000	209.2792
Maximum	**0.8644**	**1.4604**	**1.9619**	**5.8300e-003**	**0.2467**	**0.0228**	**0.2696**	**0.0955**	**0.0228**	**0.1183**	**0.0000**	**513.5659**	**513.5659**	**0.0221**	**0.0000**	**514.1180**

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					
2033	0.1913	1.4604	1.9619	5.8300e-003	0.1594	0.0228	0.1823	0.0562	0.0228	0.0790	0.0000	513.5655	513.5655	0.0221	0.0000	514.1177
2034	0.8644	0.6455	0.9799	2.4400e-003	0.0396	9.7000e-003	0.0493	0.0107	9.6900e-003	0.0204	0.0000	209.0650	209.0650	8.5600e-003	0.0000	209.2790
Maximum	**0.8644**	**1.4604**	**1.9619**	**5.8300e-003**	**0.1594**	**0.0228**	**0.1823**	**0.0562**	**0.0228**	**0.0790**	**0.0000**	**513.5655**	**513.5655**	**0.0221**	**0.0000**	**514.1177**

	ROG	NOx	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**	**30.50**	**0.00**	**27.38**	**37.04**	**0.00**	**28.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2033	3-31-2033	0.5245	0.5245
2	4-1-2033	6-30-2033	0.4004	0.4004
3	7-1-2033	9-30-2033	0.3634	0.3634
4	10-1-2033	12-31-2033	0.3643	0.3643
5	1-1-2034	3-31-2034	0.3558	0.3558
6	4-1-2034	6-30-2034	1.1293	1.1293
7	7-1-2034	9-30-2034	0.0421	0.0421
		Highest	1.1293	1.1293

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Stationary	0.0318	0.1423	0.0811	1.5000e-004		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	14.7688	14.7688	2.0700e-003	0.0000	14.8206
Waste						0.0000	0.0000		0.0000	0.0000	43.6146	0.0000	43.6146	2.5776	0.0000	108.0534
Water						0.0000	0.0000		0.0000	0.0000	4.0967	0.0000	4.0967	0.4208	9.9400e-003	17.5765
Total	**0.4717**	**0.7696**	**1.1946**	**5.6100e-003**	**0.6092**	**7.5600e-003**	**0.6168**	**0.1634**	**7.3600e-003**	**0.1708**	**47.7113**	**520.6635**	**568.3748**	**3.0164**	**9.9400e-003**	**646.7445**

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Stationary	0.0318	0.1423	0.0811	1.5000e-004		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	14.7688	14.7688	2.0700e-003	0.0000	14.8206
Waste						0.0000	0.0000		0.0000	0.0000	43.6146	0.0000	43.6146	2.5776	0.0000	108.0534
Water						0.0000	0.0000		0.0000	0.0000	4.0967	0.0000	4.0967	0.4208	9.9400e-003	17.5765
Total	**0.4717**	**0.7696**	**1.1946**	**5.6100e-003**	**0.6092**	**7.5600e-003**	**0.6168**	**0.1634**	**7.3600e-003**	**0.1708**	**47.7113**	**520.6635**	**568.3748**	**3.0164**	**9.9400e-003**	**646.7445**

	ROG	NOx	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

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2033	1/28/2033	5	20	
2	Grading	Grading	1/28/2033	3/24/2033	5	40	
3	Building Construction	Building Construction	3/24/2033	7/2/2034	5	332	
4	Paving	Paving	3/24/2033	4/16/2033	5	17	
5	Architectural Coating	Architectural Coating	5/17/2034	7/2/2034	5	33	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 1.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 97,500; Non-Residential Outdoor: 32,500; Striped Parking Area: 3,656 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale Phase III - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	4.00	274.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	4.00	2,888.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	46.00	21.00	816.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2033

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					0.0261	0.0000	0.0261	3.9500e-003	0.0000	3.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0801	0.1297	2.8000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	24.1504	24.1504	1.0700e-003	0.0000	24.1771
Total	**0.0133**	**0.0801**	**0.1297**	**2.8000e-004**	**0.0261**	**2.1500e-003**	**0.0282**	**3.9500e-003**	**2.1500e-003**	**6.1000e-003**	**0.0000**	**24.1504**	**24.1504**	**1.0700e-003**	**0.0000**	**24.1771**

3.2 Demolition - 2033

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	6.4000e-004	0.0191	7.1900e-003	1.0000e-004	2.3200e-003	3.0000e-005	2.3500e-003	6.4000e-004	3.0000e-005	6.7000e-004	0.0000	9.3302	9.3302	4.5000e-004	0.0000	9.3414
Vendor	7.0000e-005	2.7600e-003	7.4000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9533	0.9533	4.0000e-005	0.0000	0.9542
Worker	1.9000e-004	1.0000e-004	1.3000e-003	1.0000e-005	1.0300e-003	0.0000	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.5955	0.5955	1.0000e-005	0.0000	0.5957
Total	**9.0000e-004**	**0.0220**	**9.2300e-003**	**1.2000e-004**	**3.6100e-003**	**3.0000e-005**	**3.6500e-003**	**9.9000e-004**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**10.8790**	**10.8790**	**5.0000e-004**	**0.0000**	**10.8913**

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					0.0117	0.0000	0.0117	1.7800e-003	0.0000	1.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0801	0.1297	2.8000e-004		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	24.1504	24.1504	1.0700e-003	0.0000	24.1771
Total	**0.0133**	**0.0801**	**0.1297**	**2.8000e-004**	**0.0117**	**2.1500e-003**	**0.0139**	**1.7800e-003**	**2.1500e-003**	**3.9300e-003**	**0.0000**	**24.1504**	**24.1504**	**1.0700e-003**	**0.0000**	**24.1771**

3.2 Demolition - 2033

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	6.4000e-004	0.0191	7.1900e-003	1.0000e-004	2.3200e-003	3.0000e-005	2.3500e-003	6.4000e-004	3.0000e-005	6.7000e-004	0.0000	9.3302	9.3302	4.5000e-004	0.0000	9.3414
Vendor	7.0000e-005	2.7600e-003	7.4000e-004	1.0000e-005	2.6000e-004	0.0000	2.7000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.9533	0.9533	4.0000e-005	0.0000	0.9542
Worker	1.9000e-004	1.0000e-004	1.3000e-003	1.0000e-005	1.0300e-003	0.0000	1.0300e-003	2.7000e-004	0.0000	2.8000e-004	0.0000	0.5955	0.5955	1.0000e-005	0.0000	0.5957
Total	**9.0000e-004**	**0.0220**	**9.2300e-003**	**1.2000e-004**	**3.6100e-003**	**3.0000e-005**	**3.6500e-003**	**9.9000e-004**	**3.0000e-005**	**1.0300e-003**	**0.0000**	**10.8790**	**10.8790**	**5.0000e-004**	**0.0000**	**10.8913**

3.3 Grading - 2033

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					0.1327	0.0000	0.1327	0.0676	0.0000	0.0676	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1182	0.1592	5.0000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	43.3321	43.3321	1.9000e-003	0.0000	43.3795
Total	**0.0235**	**0.1182**	**0.1592**	**5.0000e-004**	**0.1327**	**3.7200e-003**	**0.1364**	**0.0676**	**3.7200e-003**	**0.0713**	**0.0000**	**43.3321**	**43.3321**	**1.9000e-003**	**0.0000**	**43.3795**

3.3 Grading - 2033

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	6.7400e-003	0.2013	0.0758	1.0100e-003	0.0244	3.6000e-004	0.0248	6.7100e-003	3.5000e-004	7.0600e-003	0.0000	98.3415	98.3415	4.7400e-003	0.0000	98.4600
Vendor	1.5000e-004	5.5300e-003	1.4800e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9065	1.9065	7.0000e-005	0.0000	1.9083
Worker	2.9000e-004	1.5000e-004	2.0000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	0.9162	0.9162	1.0000e-005	0.0000	0.9164
Total	**7.1800e-003**	**0.2069**	**0.0793**	**1.0400e-003**	**0.0265**	**3.8000e-004**	**0.0269**	**7.2800e-003**	**3.7000e-004**	**7.6500e-003**	**0.0000**	**101.1642**	**101.1642**	**4.8200e-003**	**0.0000**	**101.2847**

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					0.0597	0.0000	0.0597	0.0304	0.0000	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0235	0.1182	0.1592	5.0000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	43.3321	43.3321	1.9000e-003	0.0000	43.3795
Total	**0.0235**	**0.1182**	**0.1592**	**5.0000e-004**	**0.0597**	**3.7200e-003**	**0.0634**	**0.0304**	**3.7200e-003**	**0.0341**	**0.0000**	**43.3321**	**43.3321**	**1.9000e-003**	**0.0000**	**43.3795**

3.3 Grading - 2033

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	6.7400e-003	0.2013	0.0758	1.0100e-003	0.0244	3.6000e-004	0.0248	6.7100e-003	3.5000e-004	7.0600e-003	0.0000	98.3415	98.3415	4.7400e-003	0.0000	98.4600
Vendor	1.5000e-004	5.5300e-003	1.4800e-003	2.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	1.9065	1.9065	7.0000e-005	0.0000	1.9083
Worker	2.9000e-004	1.5000e-004	2.0000e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	0.9162	0.9162	1.0000e-005	0.0000	0.9164
Total	**7.1800e-003**	**0.2069**	**0.0793**	**1.0400e-003**	**0.0265**	**3.8000e-004**	**0.0269**	**7.2800e-003**	**3.7000e-004**	**7.6500e-003**	**0.0000**	**101.1642**	**101.1642**	**4.8200e-003**	**0.0000**	**101.2847**

3.4 Building Construction - 2033

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	0.1249	0.7976	1.3778	2.7800e-003		0.0142	0.0142		0.0142	0.0142	0.0000	228.9660	228.9660	0.0101	0.0000	229.2182
Total	**0.1249**	**0.7976**	**1.3778**	**2.7800e-003**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**228.9660**	**228.9660**	**0.0101**	**0.0000**	**229.2182**

3.4 Building Construction - 2033

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	1.1600e-003	0.0346	0.0130	1.7000e-004	6.2200e-003	6.0000e-005	6.2800e-003	1.6500e-003	6.0000e-005	1.7100e-003	0.0000	16.9061	16.9061	8.1000e-004	0.0000	16.9265
Vendor	3.9000e-003	0.1465	0.0394	5.2000e-004	0.0139	1.6000e-004	0.0141	4.0200e-003	1.5000e-004	4.1700e-003	0.0000	50.5461	50.5461	1.9200e-003	0.0000	50.5941
Worker	6.7000e-003	3.4400e-003	0.0465	2.3000e-004	0.0367	1.3000e-004	0.0369	9.7700e-003	1.2000e-004	9.8900e-003	0.0000	21.2826	21.2826	2.3000e-004	0.0000	21.2884
Total	**0.0118**	**0.1845**	**0.0989**	**9.2000e-004**	**0.0568**	**3.5000e-004**	**0.0572**	**0.0154**	**3.3000e-004**	**0.0158**	**0.0000**	**88.7348**	**88.7348**	**2.9600e-003**	**0.0000**	**88.8089**

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	0.1249	0.7976	1.3778	2.7800e-003		0.0142	0.0142		0.0142	0.0142	0.0000	228.9657	228.9657	0.0101	0.0000	229.2180
Total	**0.1249**	**0.7976**	**1.3778**	**2.7800e-003**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**228.9657**	**228.9657**	**0.0101**	**0.0000**	**229.2180**

3.4 Building Construction - 2033

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	1.1600e-003	0.0346	0.0130	1.7000e-004	6.2200e-003	6.0000e-005	6.2800e-003	1.6500e-003	6.0000e-005	1.7100e-003	0.0000	16.9061	16.9061	8.1000e-004	0.0000	16.9265
Vendor	3.9000e-003	0.1465	0.0394	5.2000e-004	0.0139	1.6000e-004	0.0141	4.0200e-003	1.5000e-004	4.1700e-003	0.0000	50.5461	50.5461	1.9200e-003	0.0000	50.5941
Worker	6.7000e-003	3.4400e-003	0.0465	2.3000e-004	0.0367	1.3000e-004	0.0369	9.7700e-003	1.2000e-004	9.8900e-003	0.0000	21.2826	21.2826	2.3000e-004	0.0000	21.2884
Total	**0.0118**	**0.1845**	**0.0989**	**9.2000e-004**	**0.0568**	**3.5000e-004**	**0.0572**	**0.0154**	**3.3000e-004**	**0.0158**	**0.0000**	**88.7348**	**88.7348**	**2.9600e-003**	**0.0000**	**88.8089**

3.4 Building Construction - 2034

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	0.0804	0.5133	0.8867	1.7900e-003		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	147.3544	147.3544	6.4900e-003	0.0000	147.5167
Total	**0.0804**	**0.5133**	**0.8867**	**1.7900e-003**		**9.1500e-003**	**9.1500e-003**		**9.1500e-003**	**9.1500e-003**	**0.0000**	**147.3544**	**147.3544**	**6.4900e-003**	**0.0000**	**147.5167**

3.4 Building Construction - 2034

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	7.4000e-004	0.0221	8.4000e-003	1.1000e-004	5.8400e-003	4.0000e-005	5.8800e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	10.8600	10.8600	5.2000e-004	0.0000	10.8731
Vendor	2.4900e-003	0.0938	0.0252	3.4000e-004	8.9500e-003	1.0000e-004	9.0500e-003	2.5900e-003	9.0000e-005	2.6800e-003	0.0000	32.4845	32.4845	1.2300e-003	0.0000	32.5152
Worker	4.0600e-003	2.0800e-003	0.0285	1.5000e-004	0.0236	8.0000e-005	0.0237	6.2900e-003	7.0000e-005	6.3600e-003	0.0000	13.4838	13.4838	1.4000e-004	0.0000	13.4873
Total	**7.2900e-003**	**0.1179**	**0.0621**	**6.0000e-004**	**0.0384**	**2.2000e-004**	**0.0386**	**0.0104**	**2.0000e-004**	**0.0106**	**0.0000**	**56.8283**	**56.8283**	**1.8900e-003**	**0.0000**	**56.8755**

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	0.0804	0.5133	0.8867	1.7900e-003		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	147.3542	147.3542	6.4900e-003	0.0000	147.5165
Total	**0.0804**	**0.5133**	**0.8867**	**1.7900e-003**		**9.1500e-003**	**9.1500e-003**		**9.1500e-003**	**9.1500e-003**	**0.0000**	**147.3542**	**147.3542**	**6.4900e-003**	**0.0000**	**147.5165**

3.4 Building Construction - 2034

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	7.4000e-004	0.0221	8.4000e-003	1.1000e-004	5.8400e-003	4.0000e-005	5.8800e-003	1.5100e-003	4.0000e-005	1.5500e-003	0.0000	10.8600	10.8600	5.2000e-004	0.0000	10.8731
Vendor	2.4900e-003	0.0938	0.0252	3.4000e-004	8.9500e-003	1.0000e-004	9.0500e-003	2.5900e-003	9.0000e-005	2.6800e-003	0.0000	32.4845	32.4845	1.2300e-003	0.0000	32.5152
Worker	4.0600e-003	2.0800e-003	0.0285	1.5000e-004	0.0236	8.0000e-005	0.0237	6.2900e-003	7.0000e-005	6.3600e-003	0.0000	13.4838	13.4838	1.4000e-004	0.0000	13.4873
Total	**7.2900e-003**	**0.1179**	**0.0621**	**6.0000e-004**	**0.0384**	**2.2000e-004**	**0.0386**	**0.0104**	**2.0000e-004**	**0.0106**	**0.0000**	**56.8283**	**56.8283**	**1.8900e-003**	**0.0000**	**56.8755**

3.5 Paving - 2033

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	9.2100e-003	0.0510	0.1065	1.8000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	15.7553	15.7553	7.5000e-004	0.0000	15.7740
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5800e-003**	**0.0510**	**0.1065**	**1.8000e-004**		**1.9900e-003**	**1.9900e-003**		**1.9900e-003**	**1.9900e-003**	**0.0000**	**15.7553**	**15.7553**	**7.5000e-004**	**0.0000**	**15.7740**

3.5 Paving - 2033

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	1.8000e-004	9.0000e-005	1.2800e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5841	0.5841	1.0000e-005	0.0000	0.5842
Total	**1.8000e-004**	**9.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5841**	**0.5841**	**1.0000e-005**	**0.0000**	**0.5842**

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	9.2100e-003	0.0510	0.1065	1.8000e-004		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	15.7553	15.7553	7.5000e-004	0.0000	15.7740
Paving	3.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.5800e-003**	**0.0510**	**0.1065**	**1.8000e-004**		**1.9900e-003**	**1.9900e-003**		**1.9900e-003**	**1.9900e-003**	**0.0000**	**15.7553**	**15.7553**	**7.5000e-004**	**0.0000**	**15.7740**

3.5 Paving - 2033

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	1.8000e-004	9.0000e-005	1.2800e-003	1.0000e-005	1.0100e-003	0.0000	1.0100e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5841	0.5841	1.0000e-005	0.0000	0.5842
Total	**1.8000e-004**	**9.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.0100e-003**	**0.0000**	**1.0100e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5841**	**0.5841**	**1.0000e-005**	**0.0000**	**0.5842**

3.6 Architectural Coating - 2034

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	0.7744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1600e-003	0.0141	0.0297	5.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.2129	4.2129	1.7000e-004	0.0000	4.2171
Total	**0.7765**	**0.0141**	**0.0297**	**5.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.2129**	**4.2129**	**1.7000e-004**	**0.0000**	**4.2171**

3.6 Architectural Coating - 2034

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.0000e-004	1.4200e-003	1.0000e-005	1.1700e-003	0.0000	1.1800e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.6697	0.6697	1.0000e-005	0.0000	0.6699
Total	**2.0000e-004**	**1.0000e-004**	**1.4200e-003**	**1.0000e-005**	**1.1700e-003**	**0.0000**	**1.1800e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.6697**	**0.6697**	**1.0000e-005**	**0.0000**	**0.6699**

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	0.7744					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1600e-003	0.0141	0.0297	5.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.2129	4.2129	1.7000e-004	0.0000	4.2171
Total	**0.7765**	**0.0141**	**0.0297**	**5.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.2129**	**4.2129**	**1.7000e-004**	**0.0000**	**4.2171**

3.6 Architectural Coating - 2034

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.0000e-004	1.4200e-003	1.0000e-005	1.1700e-003	0.0000	1.1800e-003	3.1000e-004	0.0000	3.2000e-004	0.0000	0.6697	0.6697	1.0000e-005	0.0000	0.6699
Total	**2.0000e-004**	**1.0000e-004**	**1.4200e-003**	**1.0000e-005**	**1.1700e-003**	**0.0000**	**1.1800e-003**	**3.1000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.6697**	**0.6697**	**1.0000e-005**	**0.0000**	**0.6699**

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	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915
Unmitigated	0.1045	0.6273	1.1123	5.4600e-003	0.6092	2.8800e-003	0.6121	0.1634	2.6800e-003	0.1661	0.0000	505.8924	505.8924	0.0160	0.0000	506.2915

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Government (Civic Center)	999.70	999.70	0.00	1,638,054	1,638,054
Parking Lot	0.00	0.00	0.00		
Total	999.70	999.70	0.00	1,638,054	1,638,054

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
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Parking Lot	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
Enclosed Parking with Elevator	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664
Government (Civic Center)	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664
Parking Lot	0.586738	0.035955	0.192984	0.105809	0.011934	0.005282	0.020090	0.029629	0.002743	0.001672	0.005567	0.000933	0.000664

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
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
Government (Civic Center)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
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
Government (Civic Center)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	285616	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.15895e +006	0.0000	0.0000	0.0000	0.0000
Parking Lot	4268.95	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	230042	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.04361e +006	0.0000	0.0000	0.0000	0.0000
Parking Lot	4102.28	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Unmitigated	0.3353	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003

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	0.0774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Total	**0.3354**	**1.0000e-005**	**1.1500e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2500e-003**	**2.2500e-003**	**1.0000e-005**	**0.0000**	**2.4000e-003**

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	0.0774					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2500e-003	2.2500e-003	1.0000e-005	0.0000	2.4000e-003
Total	**0.3354**	**1.0000e-005**	**1.1500e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2500e-003**	**2.2500e-003**	**1.0000e-005**	**0.0000**	**2.4000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.0967	0.4208	9.9400e-003	17.5765
Unmitigated	4.0967	0.4208	9.9400e-003	17.5765

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	12.9129 / 7.91435	4.0967	0.4208	9.9400e-003	17.5765
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.0967**	**0.4208**	**9.9400e-003**	**17.5765**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	12.9129 / 7.91435	4.0967	0.4208	9.9400e-003	17.5765
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.0967**	**0.4208**	**9.9400e-003**	**17.5765**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	43.6146	2.5776	0.0000	108.0534
Unmitigated	43.6146	2.5776	0.0000	108.0534

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	214.86	43.6146	2.5776	0.0000	108.0534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**43.6146**	**2.5776**	**0.0000**	**108.0534**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	214.86	43.6146	2.5776	0.0000	108.0534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**43.6146**	**2.5776**	**0.0000**	**108.0534**

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
Emergency Generator	1	0	24	1616	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0318	0.1423	0.0811	1.5000e-004		4.6800e-003	4.6800e-003		4.6800e-003	4.6800e-003	0.0000	14.7688	14.7688	2.0700e-003	0.0000	14.8206
Total	**0.0318**	**0.1423**	**0.0811**	**1.5000e-004**		**4.6800e-003**	**4.6800e-003**		**4.6800e-003**	**4.6800e-003**	**0.0000**	**14.7688**	**14.7688**	**2.0700e-003**	**0.0000**	**14.8206**

11.0 Vegetation

APPENDIX B

Revised Air Quality and Greenhouse Gas Supporting Information

- CalEEMod Outputs – Existing Conditions
- CalEEMod Outputs – Construction
- CalEEMod Outputs – Construction (Mitigated)
- CalEEMod Outputs – Operation
- Screen3 Outputs

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Demolition, Grading & Paving - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.3914
City Hall Annex	**0.91**	39,648	3,683	**219**	**181**	66.7	55.2	0.1199
South City Hall Annex	**0.41**	17,969	1,669	**144**	**125**	43.8	38.1	0.0544
Sunnyvale Office Complex	**2.81**	122,344	11,366	**544**	**225**	165.7	68.6	0.3701
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.0643
Total Model Area	**7.59**	**330,586**	**30,712**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	15,692	365	42.99	24	86,400	4.98E-04	4.14E-08		400	**1.292E+07**	0.5349	**0.0535**	**0.0107**
City Hall Annex	4,809	365	13.18	24	86,400	1.52E-04	4.14E-08		700	**2.753E+06**	0.1140	**0.0114**	**0.0023**
South City Hall Annex	2,179	365	5.97	24	86,400	6.91E-05	4.14E-08		350	**3.772E+06**	0.1562	**0.0156**	**0.0031**
Sunnyvale Office Complex	14,839	365	40.66	24	86,400	4.71E-04	4.14E-08		800	**6.686E+06**	0.2768	**0.0277**	**0.0055**
New EOC	2,577	365	7.06	24	86,400	8.17E-05	4.14E-08		1,100		0.0000	**0.0000**	**0.0000**
	40,098											**0.1082**	**0.0216**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.1082	302	350	1.00	1.00E+00	25550	4.48E-01	1.10	1.7	0.84

0.84 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	83,452	365	228.64	24	86,400	2.65E-03	2.20E-07		400	**1.292E+07**	2.8446	**0.2845**	**0.0569**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
South City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
New EOC	13,707	365	37.55	24	86,400	4.35E-04	2.20E-07		1,100		0.0000	**0.0000**	**0.0000**
	97,159											**0.2845**	**0.0569**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.2845	302	350	1.00	1.00E+00	25550	1.18E+00	1.10	1.7	2.20

2.20 per million

Total Year 2020 **3.04** **0.3926** **0.0785**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2021

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily						**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission	Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area	Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)	(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	46,908	365	128.51	24	86,400	1.49E-03	1.24E-07	400	**1.292E+07**	1.5989	**0.1599**	**0.0320**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00			0.0000	**0.0000**	**0.0000**
South City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00			0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00			0.0000	**0.0000**	**0.0000**
New EOC	7,705	365	21.11	24	86,400	2.44E-04	1.24E-07	1,100		0.0000	**0.0000**	**0.0000**
	54,612										**0.1599**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.1599	302	350	1.00	1.00E+00	25550	6.61E-01	1.10	1.7	1.24

1.24 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Demolition, Grading & Paving - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.3914
City Hall Annex	**0.91**	39,648	3,683	**219**	**181**	66.7	55.2	0.1199
South City Hall Annex	**0.41**	17,969	1,669	**144**	**125**	43.8	38.1	0.0544
Sunnyvale Office Complex	**2.81**	122,344	11,366	**544**	**225**	165.7	68.6	0.3701
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.0643
Total Model Area	**7.59**	**330,586**	**30,712**					

SCREEN3 Model						Average Daily							**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	1,516	365	4.15	24	86,400	4.81E-05	4.00E-09		400	**1.292E+07**	0.0517	**0.0052**	**0.0010**
City Hall Annex	465	365	1.27	24	86,400	1.47E-05	4.00E-09		700	**2.753E+06**	0.0110	**0.0011**	**0.0002**
South City Hall Annex	211	365	0.58	24	86,400	6.68E-06	4.00E-09		350	**3.772E+06**	0.0151	**0.0015**	**0.0003**
Sunnyvale Office Complex	1,434	365	3.93	24	86,400	4.55E-05	4.00E-09		800	**6.686E+06**	0.0267	**0.0027**	**0.0005**
New EOC	249	365	0.68	24	86,400	7.90E-06	4.00E-09		1,100		0.0000	**0.0000**	**0.0000**
	3,874											**0.0105**	**0.0021**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.0105	302	350	1.00	1.00E+00	25550	4.32E-02	1.10	1.7	0.08

0.08 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily							**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	10,753	365	29.46	24	86,400	3.41E-04	2.84E-08		400	**1.292E+07**	0.3665	**0.0367**	**0.0073**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
South City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
New EOC	1,766	365	4.84	24	86,400	5.60E-05	2.84E-08		1,100		0.0000	**0.0000**	**0.0000**
	12,519											**0.0367**	**0.0073**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.0367	302	350	1.00	1.00E+00	25550	1.52E-01	1.10	1.7	0.28

0.28 per million

Total Year 2020	**0.36**		**0.0471**	**0.0094**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2021

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily							**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	7,052	365	19.32	24	86,400	2.24E-04	1.86E-08		400	**1.292E+07**	0.2404	**0.0240**	**0.0048**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
South City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
New EOC	1,158	365	3.17	24	86,400	3.67E-05	1.86E-08		1,100		0.0000	**0.0000**	**0.0000**
	8,210											**0.0240**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.0240	302	350	1.00	1.00E+00	25550	9.94E-02	1.10	1.7	0.19

0.19 per million

Sunnyvale Civic Center - Phase I - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - All Subphases - Year 2023

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	64,740	365	177.37	24	86,400	2.05E-03	1.10E-07		350	**1.901E+07**	2.0897	**0.2090**	**0.0418**
Underground Garage	21,035	365	57.63	24	86,400	6.67E-04	1.10E-07		800	**3.345E+06**	0.3677	**0.0368**	**0.0074**
													0.0491
	85,774											**0.2457**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.2457	302	350	1.00	1.00E+00	25550	1.02E+00	1.10	1.7	1.90

1.90 per million

Sunnyvale Civic Center - Phase I - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - Building & Coating - Year 2024

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	26,574	365	72.80	24	86,400	8.43E-04	4.51E-08		350	**1.901E+07**	0.8578	**0.0858**	**0.0172**
Underground Garage	8,634	365	23.66	24	86,400	2.74E-04	4.51E-08		800	**3.345E+06**	0.1509	**0.0151**	**0.0030**
													0.0202
	35,208											**0.1009**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest Residence	0.1009	302	350	1.00	1.00E+00	25550	4.17E-01	1.10	1.7	0.78

0.78 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL
Phase III - Demolition, Grading & Paving - Year 2033

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old Public Safety/EOC	**2.38**	103,516	9,617	**331**	**313**	101.0	95.3	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**2.38**	**103,516**	**9,617**					

SCREEN3 Model

California Average Construction Fleet Contributing Model Area	Total DPM Emissions (grams)	Total Days	Daily DPM Emissions (grams)	Hours/ Day	Seconds/ Day	Average Daily Emission Rate (g/sec)	Average Daily Emission Rate/Area (g/sec*m2)	Receptor Distance (feet)	Chi/Q SCREEN3	DPM Conc Avg Hour ug/m3	**DPM Annual Conc ug/m3**	CHI
Old Public Safety/EOC	7,130	365	19.54	24	86,400	2.26E-04	2.35E-08	250	**1.327E+07**	0.3120	**0.0312**	**0.0062**
	0	365	0.00	24	86,400	0.00E+00	0.00E+00			0.0000	**0.0000**	**0.0000**
												0.0062
	7,130										**0.0312**	

Affected Receptor	Dose Factors: Air Conc (ug/m3)	DBR (L /kg day)	EF (days/yr)	ED (years)	CF	AT (days)	**Dose** mg/kg day	Risk Factors: Cancer Potency Factor (mg/kg day)^-1	Age Sens. Fac.	**Cancer Risk**
Closest Residence	0.0312	302	350	1.00	1.00E+00	25550	1.29E-01	1.10	1.7	0.24

0.24 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL
Phase III - Construction - Year 2033

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
New Public Safety	**1.73**	75,273	6,993	**294**	**256**	89.5	78.1	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**1.73**	**75,273**	**6,993**					

SCREEN3 Model

California Average Construction Fleet Contributing Model Area	Total DPM Emissions (grams)	Total Days	Daily DPM Emissions (grams)	Hours/ Day	Seconds/ Day	Average Daily Emission Rate (g/sec)	Average Daily Emission Rate/Area (g/sec*m2)	Receptor Distance (feet)	Chi/Q SCREEN3	DPM Conc Avg Hour ug/m3	**DPM Annual Conc ug/m3**	CHI
New Public Safety	12,882	365	35.29	24	86,400	4.08E-04	5.84E-08	250	**1.327E+07**	0.7751	**0.0775**	**0.0155**

	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
													0.0155
	12,882											**0.0775**	

	Dose Factors							Risk Factors				
Affected Receptor	Air Conc (ug/m3)	DBR (L /kg day)	EF (days/yr)	ED (years)	CF	AT (days)	**Dose** mg/kg day	Cancer Potency Factor (mg/kg day)^-1	Age Sens. Fac.	**Cancer Risk**		
Closest Residence	0.0775	302	350	1.00	1.00E+00	25550	3.21E-01	1.10	1.7	0.60		
										0.60	**per million**	
								Total 2033		**0.84**		**0.1087** **0.0217**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase III - Construction & Coating - Year 2034

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
New Public Safety	**1.73**	75,273	6,993	**294**	**256**	89.5	78.1	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**1.73**	**75,273**	**6,993**					

SCREEN3 Model						Average Daily						**DPM**	
California Average Construction Fleet Contributing Model Area	Total DPM Emissions (grams)	Total Days	Daily DPM Emissions (grams)	Hours/ Day	Seconds/ Day	Emission Rate (g/sec)	Emission Rate/Area (g/sec*m2)		Receptor Distance (feet)	Chi/Q SCREEN3	DPM Conc Avg Hour ug/m3	**Annual Conc ug/m3**	CHI
New Public Safety	8,301	365	22.74	24	86,400	2.63E-04	3.76E-08		250	**1.327E+07**	0.4995	**0.0499**	**0.0100**
	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
	8,301											**0.0499**	

	Dose Factors							Risk Factors				
Affected Receptor	Air Conc (ug/m3)	DBR (L /kg day)	EF (days/yr)	ED (years)	CF	AT (days)	**Dose** mg/kg day	Cancer Potency Factor (mg/kg day)^-1	Age Sens. Fac.	**Cancer Risk**		
Closest Residence	0.0499	302	350	1.00	1.00E+00	25550	2.07E-01	1.10	1.7	0.39		
										0.39	**per million**	

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Demolition, Grading & Paving - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.3914
City Hall Annex	**0.91**	39,648	3,683	**219**	**181**	66.7	55.2	0.1199
South City Hall Annex	**0.41**	17,969	1,669	**144**	**125**	43.8	38.1	0.0544
Sunnyvale Office Complex	**2.81**	122,344	11,366	**544**	**225**	165.7	68.6	0.3701
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.0643
Total Model Area	**7.59**	**330,586**	**30,712**					

SCREEN3 Model						Average Daily						**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	15,692	365	42.99	24	86,400	4.98E-04	4.14E-08		825	**5.831E+06**	0.2414	**0.0241**	**0.0048**
City Hall Annex	4,809	365	13.18	24	86,400	1.52E-04	4.14E-08		775	**2.376E+06**	0.0984	**0.0098**	**0.0020**
Sunnyvale Office Complex	14,839	365	40.66	24	86,400	4.71E-04	4.14E-08		325	**1.788E+07**	0.7402	**0.0740**	**0.0148**
New EOC	2,577	365	7.06	24	86,400	8.17E-05	4.14E-08		900	**1.349E+06**	0.0558	**0.0056**	**0.0011**
	40,098											**0.1136**	**0.0227**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.1136	581	260	1.00	1.00E+00	25550	7.23E-01	1.10	3	2.39

2.39 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily						**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	83,452	365	228.64	24	86,400	2.65E-03	2.20E-07		825	**5.831E+06**	1.2838	**0.1284**	**0.0257**

City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		775	**2.376E+06**	0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		325	**1.788E+07**	0.0000	**0.0000**	**0.0000**
New EOC	13,707	365	37.55	24	86,400	4.35E-04	2.20E-07		900	**1.349E+06**	0.2970	**0.0297**	**0.0059**
	97,159											**0.1581**	**0.0316**

	Dose Factors							**Risk Factors**				
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**		
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**		
Closest School (Montessori)	0.1581	581	260	1.00	1.00E+00	25550	1.01E+00	1.10	3	3.32		
										3.32 per million		
								Total Year 2020		**5.71**	**0.2717**	**0.0543**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Demolition, Grading & Paving - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.3914
City Hall Annex	**0.91**	39,648	3,683	**219**	**181**	66.7	55.2	0.1199
South City Hall Annex	**0.41**	17,969	1,669	**144**	**125**	43.8	38.1	0.0544
Sunnyvale Office Complex	**2.81**	122,344	11,366	**544**	**225**	165.7	68.6	0.3701
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.0643
Total Model Area	**7.59**	**330,586**	**30,712**					

SCREEN3 Model						Average Daily						**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	1,516	365	4.15	24	86,400	4.81E-05	4.00E-09		825	**5.831E+06**	0.0233	**0.0023**	**0.0005**
City Hall Annex	465	365	1.27	24	86,400	1.47E-05	4.00E-09		775	**2.376E+06**	0.0095	**0.0010**	**0.0002**
Sunnyvale Office Complex	1,434	365	3.93	24	86,400	4.55E-05	4.00E-09		325	**1.788E+07**	0.0715	**0.0072**	**0.0014**
New EOC	249	365	0.68	24	86,400	7.90E-06	4.00E-09		900	**1.349E+06**	0.0054	**0.0005**	**0.0001**
	3,874											**0.0110**	**0.0022**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0110	581	260	1.00	1.00E+00	25550	6.99E-02	1.10	3	0.23

0.23 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2020

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily						**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	10,753	365	29.46	24	86,400	3.41E-04	2.84E-08		825	**5.831E+06**	0.1654	**0.0165**	**0.0033**

City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00			775	**2.376E+06**	0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00			325	**1.788E+07**	0.0000	**0.0000**	**0.0000**
New EOC	1,766	365	4.84	24	86,400	5.60E-05	2.84E-08			900	**1.349E+06**	0.0383	**0.0038**	**0.0008**
	12,519												**0.0204**	**0.0041**

	Dose Factors							**Risk Factors**				
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**		
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**		
Closest School (Montessori)	0.0204	581	260	1.00	1.00E+00	25550	1.30E-01	1.10	3	0.43		
										0.43	**per million**	
								Total Year 2020		**0.66**	**0.0313**	**0.0063**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2021

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily						**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	46,908	365	128.51	24	86,400	1.49E-03	1.24E-07		825	**5.831E+06**	0.7216	**0.0722**	**0.0144**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		775	**2.376E+06**	0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		325	**1.788E+07**	0.0000	**0.0000**	**0.0000**
New EOC	7,705	365	21.11	24	86,400	2.44E-04	1.24E-07		900	**1.349E+06**	0.1669	**0.0167**	**0.0033**
	54,612											**0.0889**	**0.0178**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0889	581	260	1.00	1.00E+00	25550	5.66E-01	1.10	3	1.87

1.87 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase I - Construction & Coating - Year 2021

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New City Hall	**2.97**	129,375	12,019	**431**	**300**	131.4	91.4	0.8589
City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
South City Hall Annex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
Sunnyvale Office Complex	**0.00**	0	0	**0**	**0**	0.0	0.0	0.0000
New EOC	**0.49**	21,250	1,974	**200**	**106**	61.0	32.4	0.1411
Total Model Area	**3.46**	**150,625**	**13,994**					

SCREEN3 Model						Average Daily						**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New City Hall	7,052	365	19.32	24	86,400	2.24E-04	1.86E-08		825	**5.831E+06**	0.1085	**0.0108**	**0.0022**
City Hall Annex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		775	**2.376E+06**	0.0000	**0.0000**	**0.0000**
Sunnyvale Office Complex	0	365	0.00	24	86,400	0.00E+00	0.00E+00		325	**1.788E+07**	0.0000	**0.0000**	**0.0000**
New EOC	1,158	365	3.17	24	86,400	3.67E-05	1.86E-08		900	**1.349E+06**	0.0251	**0.0025**	**0.0005**
	8,210											**0.0134**	**0.0027**

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0134	581	260	1.00	1.00E+00	25550	8.51E-02	1.10	3	0.28

0.28 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - All Subphases - Year 2023

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	64,740	365	177.37	24	86,400	2.05E-03	1.10E-07		325	**1.900E+07**	2.0886	**0.2089**	**0.0418**
Underground Garage	21,035	365	57.63	24	86,400	6.67E-04	1.10E-07		900	**3.345E+06**	0.3677	**0.0368**	**0.0074**
													0.0491
	85,774											**0.2456**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.2456	581	260	1.00	1.00E+00	25550	1.56E+00	1.10	3	5.16

5.16 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - All Subphases - Year 2023

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	12,948	365	35.47	24	86,400	4.11E-04	2.20E-08		325	**1.900E+07**	0.4177	**0.0418**	**0.0084**
Underground Garage	4,207	365	11.53	24	86,400	1.33E-04	2.20E-08		900	**3.345E+06**	0.0735	**0.0074**	**0.0015**
													0.0098
	17,155											**0.0491**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0491	581	260	1.00	1.00E+00	25550	3.13E-01	1.10	3	1.03

1.03 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - Building & Coating - Year 2024

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
All Tier 3 + DPF	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	5,315	365	14.56	24	86,400	1.69E-04	9.02E-09		325	**1.900E+07**	0.1715	**0.0171**	**0.0034**
Underground Garage	1,727	365	4.73	24	86,400	5.48E-05	9.02E-09		900	**3.345E+06**	0.0302	**0.0030**	**0.0006**
													0.0040
	7,042											**0.0202**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0202	581	260	1.00	1.00E+00	25550	1.28E-01	1.10	3	0.42

0.42 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase II - Building & Coating - Year 2024

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old/New Library/Garage	**4.61**	201,016	18,675	**519**	**388**	158.1	118.1	0.7548
Underground Garage	**1.50**	65,313	6,068	**275**	**238**	83.8	72.4	0.2452
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**6.11**	**266,328**	**24,743**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old/New Library/Garage	26,574	365	72.80	24	86,400	8.43E-04	4.51E-08		325	**1.900E+07**	0.8573	**0.0857**	**0.0171**
Underground Garage	8,634	365	23.66	24	86,400	2.74E-04	4.51E-08		900	**3.345E+06**	0.1509	**0.0151**	**0.0030**
													0.0202
	35,208											**0.1008**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.1008	581	260	1.00	1.00E+00	25550	6.42E-01	1.10	3	2.12

2.12 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase III - Demolition, Grading & Paving - Year 2033

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
Old Public Safety/EOC	**2.38**	103,516	9,617	**331**	**313**	101.0	95.3	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**2.38**	**103,516**	**9,617**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
Old Public Safety/EOC	7,130	365	19.54	24	86,400	2.26E-04	2.35E-08		975	**4.738E+06**	0.1114	**0.0111**	**0.0022**
	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
													0.0022
	7,130											**0.0111**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0111	581	280	1.00	1.00E+00	25550	7.09E-02	1.10	3	0.23
										0.23 per million

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase III - Construction - Year 2033

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
New Public Safety	**1.73**	75,273	6,993	**294**	**256**	89.5	78.1	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**1.73**	**75,273**	**6,993**					

SCREEN3 Model						Average Daily							**DPM**	
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
New Public Safety	12,882	365	35.29	24	86,400	4.08E-04	5.84E-08		525	**6.377E+06**	0.3725	**0.0372**	**0.0074**
	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
													0.0074
	12,882											**0.0372**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0372	581	280	1.00	1.00E+00	25550	2.37E-01	1.10	3	0.78
										0.78 per million
								Total 2033		**1.02**

	0.0484	**0.0097**

Sunnyvale Civic Center - HEALTH RISK/PM CONCENTRATION MODEL

Phase III - Construction & Coating - Year 2034

Model Source Area	Area (acres)	Area (sq ft)	Area (sq m)	Long Side (feet)	Short Side (feet)	Long Side (meters)	Short Side (meters)	Area Ratios
New Public Safety	**1.73**	75,273	6,993	**294**	**256**	89.5	78.1	1.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
	0.00	0	0	**0**	**0**	0.0	0.0	0.0000
Total Model Area	**1.73**	**75,273**	**6,993**					

SCREEN3 Model						Average Daily							
California Average	Total DPM	Total	Daily DPM	Hours/	Seconds/	Emission	Emission		Receptor		DPM Conc	**DPM Annual**	
Construction Fleet	Emissions	Days	Emissions	Day	Day	Rate	Rate/Area		Distance	Chi/Q	Avg Hour	**Conc**	
Contributing Model Area	(grams)		(grams)			(g/sec)	(g/sec*m2)		(feet)	SCREEN3	ug/m3	**ug/m3**	CHI
New Public Safety	8,301	365	22.74	24	86,400	2.63E-04	3.76E-08		525	**6.377E+06**	0.2400	**0.0240**	**0.0048**
	0	365	0.00	24	86,400	0.00E+00	0.00E+00				0.0000	**0.0000**	**0.0000**
	8,301											**0.0240**	

	Dose Factors							**Risk Factors**		
	Air Conc	DBR	EF	ED	CF	AT	**Dose**	Cancer Potency Factor	Age	**Cancer**
Affected Receptor	(ug/m3)	(L /kg day)	(days/yr)	(years)		(days)	mg/kg day	(mg/kg day)^-1	Sens. Fac.	**Risk**
Closest School (Montessori)	0.0240	581	280	1.00	1.00E+00	25550	1.53E-01	1.10	3	0.50
										0.50 per million

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 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale City Hall Annex site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =      67.0560
   LENGTH OF SMALLER SIDE (M)  =      54.8640
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1051E+08    5     1.0    1.0 10000.0    3.05     38.
    69.  0.9751E+07    5     1.0    1.0 10000.0    3.05     38.
    76.  0.9026E+07    5     1.0    1.0 10000.0    3.05     37.
    84.  0.8334E+07    5     1.0    1.0 10000.0    3.05     36.
    91.  0.7691E+07    5     1.0    1.0 10000.0    3.05     36.
    99.  0.7104E+07    5     1.0    1.0 10000.0    3.05     35.
   107.  0.6574E+07    5     1.0    1.0 10000.0    3.05     34.
   114.  0.6097E+07    5     1.0    1.0 10000.0    3.05     33.
   122.  0.5668E+07    5     1.0    1.0 10000.0    3.05     33.
   130.  0.5281E+07    5     1.0    1.0 10000.0    3.05     31.
   137.  0.4932E+07    5     1.0    1.0 10000.0    3.05     30.
   145.  0.4616E+07    5     1.0    1.0 10000.0    3.05     29.
   152.  0.4329E+07    5     1.0    1.0 10000.0    3.05     28.
   160.  0.4067E+07    5     1.0    1.0 10000.0    3.05     26.
```

168.	0.3828E+07	5	1.0	1.0	10000.0	3.05	25.
175.	0.3610E+07	5	1.0	1.0	10000.0	3.05	23.
183.	0.3409E+07	5	1.0	1.0	10000.0	3.05	20.
190.	0.3225E+07	5	1.0	1.0	10000.0	3.05	21.
198.	0.3055E+07	5	1.0	1.0	10000.0	3.05	16.
206.	0.2898E+07	5	1.0	1.0	10000.0	3.05	15.
213.	0.2753E+07	5	1.0	1.0	10000.0	3.05	8.
221.	0.2618E+07	5	1.0	1.0	10000.0	3.05	6.
229.	0.2493E+07	5	1.0	1.0	10000.0	3.05	2.
236.	0.2376E+07	5	1.0	1.0	10000.0	3.05	0.
244.	0.2268E+07	5	1.0	1.0	10000.0	3.05	1.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1051E+08	61.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale City Hall site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =     131.0640
   LENGTH OF SMALLER SIDE (M)  =      91.4400
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
61.	0.1572E+08	5	1.0	1.0	10000.0	3.05	29.
69.	0.1589E+08	5	1.0	1.0	10000.0	3.05	27.
76.	0.1645E+08	5	1.0	1.0	10000.0	3.05	25.
84.	0.1685E+08	5	1.0	1.0	10000.0	3.05	35.
91.	0.1665E+08	5	1.0	1.0	10000.0	3.05	34.
99.	0.1569E+08	5	1.0	1.0	10000.0	3.05	34.
107.	0.1471E+08	5	1.0	1.0	10000.0	3.05	33.
114.	0.1379E+08	5	1.0	1.0	10000.0	3.05	33.
122.	0.1292E+08	5	1.0	1.0	10000.0	3.05	32.
130.	0.1212E+08	5	1.0	1.0	10000.0	3.05	32.
137.	0.1139E+08	5	1.0	1.0	10000.0	3.05	31.
145.	0.1072E+08	5	1.0	1.0	10000.0	3.05	31.
152.	0.1012E+08	5	1.0	1.0	10000.0	3.05	30.
160.	0.9571E+07	5	1.0	1.0	10000.0	3.05	29.

168.	0.9074E+07	5	1.0	1.0	10000.0	3.05	29.
175.	0.8619E+07	5	1.0	1.0	10000.0	3.05	28.
183.	0.8203E+07	5	1.0	1.0	10000.0	3.05	27.
190.	0.7821E+07	5	1.0	1.0	10000.0	3.05	26.
198.	0.7470E+07	5	1.0	1.0	10000.0	3.05	26.
206.	0.7145E+07	5	1.0	1.0	10000.0	3.05	25.
213.	0.6844E+07	5	1.0	1.0	10000.0	3.05	24.
221.	0.6564E+07	5	1.0	1.0	10000.0	3.05	22.
229.	0.6303E+07	5	1.0	1.0	10000.0	3.05	21.
236.	0.6059E+07	5	1.0	1.0	10000.0	3.05	21.
244.	0.5831E+07	5	1.0	1.0	10000.0	3.05	18.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1685E+08	84.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale EOC site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =      60.9600
   LENGTH OF SMALLER SIDE (M)  =      32.0040
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.8029E+07    5     1.0    1.0 10000.0    3.05     18.
    69.  0.7410E+07    5     1.0    1.0 10000.0    3.05     15.
    76.  0.6813E+07    5     1.0    1.0 10000.0    3.05     10.
    84.  0.6255E+07    5     1.0    1.0 10000.0    3.05      0.
    91.  0.5730E+07    5     1.0    1.0 10000.0    3.05      0.
    99.  0.5242E+07    5     1.0    1.0 10000.0    3.05      0.
   107.  0.4794E+07    5     1.0    1.0 10000.0    3.05      0.
   114.  0.4388E+07    5     1.0    1.0 10000.0    3.05      0.
   122.  0.4022E+07    5     1.0    1.0 10000.0    3.05      0.
   130.  0.3694E+07    5     1.0    1.0 10000.0    3.05      0.
   137.  0.3400E+07    5     1.0    1.0 10000.0    3.05      0.
   145.  0.3137E+07    5     1.0    1.0 10000.0    3.05      0.
   152.  0.2900E+07    5     1.0    1.0 10000.0    3.05      0.
   160.  0.2689E+07    5     1.0    1.0 10000.0    3.05      0.
```

168.	0.2499E+07	5	1.0	1.0	10000.0	3.05	0.
175.	0.2328E+07	5	1.0	1.0	10000.0	3.05	0.
183.	0.2173E+07	5	1.0	1.0	10000.0	3.05	0.
190.	0.2034E+07	5	1.0	1.0	10000.0	3.05	0.
198.	0.1907E+07	5	1.0	1.0	10000.0	3.05	0.
206.	0.1792E+07	5	1.0	1.0	10000.0	3.05	1.
213.	0.1687E+07	5	1.0	1.0	10000.0	3.05	0.
221.	0.1591E+07	5	1.0	1.0	10000.0	3.05	0.
229.	0.1503E+07	5	1.0	1.0	10000.0	3.05	0.
236.	0.1423E+07	5	1.0	1.0	10000.0	3.05	0.
244.	0.1349E+07	5	1.0	1.0	10000.0	3.05	0.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.8029E+07	61.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale Garage 1 site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =      83.8200
   LENGTH OF SMALLER SIDE (M)  =      71.6280
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1332E+08    5     1.0    1.0 10000.0    3.05     40.
    69.  0.1299E+08    5     1.0    1.0 10000.0    3.05     40.
    76.  0.1212E+08    5     1.0    1.0 10000.0    3.05     40.
    84.  0.1128E+08    5     1.0    1.0 10000.0    3.05     39.
    91.  0.1049E+08    5     1.0    1.0 10000.0    3.05     39.
    99.  0.9737E+07    5     1.0    1.0 10000.0    3.05     39.
   107.  0.9047E+07    5     1.0    1.0 10000.0    3.05     38.
   114.  0.8422E+07    5     1.0    1.0 10000.0    3.05     38.
   122.  0.7856E+07    5     1.0    1.0 10000.0    3.05     38.
   130.  0.7347E+07    5     1.0    1.0 10000.0    3.05     37.
   137.  0.6887E+07    5     1.0    1.0 10000.0    3.05     37.
   145.  0.6469E+07    5     1.0    1.0 10000.0    3.05     36.
   152.  0.6090E+07    5     1.0    1.0 10000.0    3.05     36.
   160.  0.5746E+07    5     1.0    1.0 10000.0    3.05     35.
```

168.	0.5431E+07	5	1.0	1.0	10000.0	3.05	34.
175.	0.5142E+07	5	1.0	1.0	10000.0	3.05	34.
183.	0.4876E+07	5	1.0	1.0	10000.0	3.05	33.
190.	0.4631E+07	5	1.0	1.0	10000.0	3.05	32.
198.	0.4405E+07	5	1.0	1.0	10000.0	3.05	31.
206.	0.4195E+07	5	1.0	1.0	10000.0	3.05	31.
213.	0.4001E+07	5	1.0	1.0	10000.0	3.05	30.
221.	0.3819E+07	5	1.0	1.0	10000.0	3.05	28.
229.	0.3650E+07	5	1.0	1.0	10000.0	3.05	27.
236.	0.3492E+07	5	1.0	1.0	10000.0	3.05	27.
244.	0.3345E+07	5	1.0	1.0	10000.0	3.05	26.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1332E+08	61.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale Library_Garage site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =     158.4960
   LENGTH OF SMALLER SIDE (M)  =     117.3480
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1662E+08    5     1.0    1.0 10000.0    3.05     31.
    69.  0.1711E+08    5     1.0    1.0 10000.0    3.05     31.
    76.  0.1758E+08    5     1.0    1.0 10000.0    3.05     31.
    84.  0.1803E+08    5     1.0    1.0 10000.0    3.05     30.
    91.  0.1846E+08    5     1.0    1.0 10000.0    3.05     30.
    99.  0.1900E+08    5     1.0    1.0 10000.0    3.05     35.
   107.  0.1901E+08    5     1.0    1.0 10000.0    3.05     36.
   114.  0.1825E+08    5     1.0    1.0 10000.0    3.05     36.
   122.  0.1717E+08    5     1.0    1.0 10000.0    3.05     36.
   130.  0.1617E+08    5     1.0    1.0 10000.0    3.05     35.
   137.  0.1522E+08    5     1.0    1.0 10000.0    3.05     35.
   145.  0.1433E+08    5     1.0    1.0 10000.0    3.05     35.
   152.  0.1351E+08    5     1.0    1.0 10000.0    3.05     34.
   160.  0.1277E+08    5     1.0    1.0 10000.0    3.05     34.
```

168.	0.1209E+08	5	1.0	1.0	10000.0	3.05	34.
175.	0.1147E+08	5	1.0	1.0	10000.0	3.05	33.
183.	0.1091E+08	5	1.0	1.0	10000.0	3.05	33.
190.	0.1040E+08	5	1.0	1.0	10000.0	3.05	32.
198.	0.9930E+07	5	1.0	1.0	10000.0	3.05	32.
206.	0.9497E+07	5	1.0	1.0	10000.0	3.05	32.
213.	0.9101E+07	5	1.0	1.0	10000.0	3.05	31.
221.	0.8732E+07	5	1.0	1.0	10000.0	3.05	31.
229.	0.8391E+07	5	1.0	1.0	10000.0	3.05	30.
236.	0.8073E+07	5	1.0	1.0	10000.0	3.05	30.
244.	0.7776E+07	5	1.0	1.0	10000.0	3.05	29.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1901E+08	107.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale New Public Safety.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =      89.9160
   LENGTH OF SMALLER SIDE (M)  =      77.7240
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1399E+08    5     1.0    1.0 10000.0    3.05     42.
    69.  0.1401E+08    5     1.0    1.0 10000.0    3.05     40.
    76.  0.1327E+08    5     1.0    1.0 10000.0    3.05     40.
    84.  0.1238E+08    5     1.0    1.0 10000.0    3.05     40.
    91.  0.1153E+08    5     1.0    1.0 10000.0    3.05     40.
    99.  0.1073E+08    5     1.0    1.0 10000.0    3.05     40.
   107.  0.9986E+07    5     1.0    1.0 10000.0    3.05     39.
   114.  0.9304E+07    5     1.0    1.0 10000.0    3.05     39.
   122.  0.8686E+07    5     1.0    1.0 10000.0    3.05     39.
   130.  0.8128E+07    5     1.0    1.0 10000.0    3.05     38.
   137.  0.7623E+07    5     1.0    1.0 10000.0    3.05     38.
   145.  0.7167E+07    5     1.0    1.0 10000.0    3.05     38.
   152.  0.6753E+07    5     1.0    1.0 10000.0    3.05     37.
   160.  0.6377E+07    5     1.0    1.0 10000.0    3.05     37.
```

168.	0.6032E+07	5	1.0	1.0	10000.0	3.05	36.
175.	0.5717E+07	5	1.0	1.0	10000.0	3.05	36.
183.	0.5427E+07	5	1.0	1.0	10000.0	3.05	35.
190.	0.5160E+07	5	1.0	1.0	10000.0	3.05	34.
198.	0.4913E+07	5	1.0	1.0	10000.0	3.05	33.
206.	0.4684E+07	5	1.0	1.0	10000.0	3.05	34.
213.	0.4472E+07	5	1.0	1.0	10000.0	3.05	33.
221.	0.4273E+07	5	1.0	1.0	10000.0	3.05	32.
229.	0.4089E+07	5	1.0	1.0	10000.0	3.05	32.
236.	0.3916E+07	5	1.0	1.0	10000.0	3.05	31.
244.	0.3754E+07	5	1.0	1.0	10000.0	3.05	30.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1401E+08	69.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale Office Conplex site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =     166.1160
   LENGTH OF SMALLER SIDE (M)  =      68.5800
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1631E+08    5     1.0    1.0 10000.0    3.05      2.
    69.  0.1683E+08    5     1.0    1.0 10000.0    3.05      1.
    76.  0.1733E+08    5     1.0    1.0 10000.0    3.05      0.
    84.  0.1784E+08    5     1.0    1.0 10000.0    3.05     16.
    91.  0.1779E+08    5     1.0    1.0 10000.0    3.05     20.
    99.  0.1788E+08    5     1.0    1.0 10000.0    3.05     21.
   107.  0.1700E+08    5     1.0    1.0 10000.0    3.05     20.
   114.  0.1601E+08    5     1.0    1.0 10000.0    3.05     19.
   122.  0.1507E+08    5     1.0    1.0 10000.0    3.05     18.
   130.  0.1418E+08    5     1.0    1.0 10000.0    3.05     16.
   137.  0.1335E+08    5     1.0    1.0 10000.0    3.05     15.
   145.  0.1259E+08    5     1.0    1.0 10000.0    3.05     13.
   152.  0.1189E+08    5     1.0    1.0 10000.0    3.05     11.
   160.  0.1125E+08    5     1.0    1.0 10000.0    3.05      9.
```

168.	0.1068E+08	5	1.0	1.0	10000.0	3.05	4.
175.	0.1015E+08	5	1.0	1.0	10000.0	3.05	2.
183.	0.9656E+07	5	1.0	1.0	10000.0	3.05	1.
190.	0.9198E+07	5	1.0	1.0	10000.0	3.05	0.
198.	0.8768E+07	5	1.0	1.0	10000.0	3.05	1.
206.	0.8364E+07	5	1.0	1.0	10000.0	3.05	0.
213.	0.7987E+07	5	1.0	1.0	10000.0	3.05	0.
221.	0.7631E+07	5	1.0	1.0	10000.0	3.05	0.
229.	0.7297E+07	5	1.0	1.0	10000.0	3.05	0.
236.	0.6983E+07	5	1.0	1.0	10000.0	3.05	0.
244.	0.6686E+07	5	1.0	1.0	10000.0	3.05	0.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1788E+08	99.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale Old PS_EOC site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =     100.5840
   LENGTH OF SMALLER SIDE (M)  =      96.0120
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.1452E+08    5     1.0    1.0 10000.0    3.05     43.
    69.  0.1512E+08    5     1.0    1.0 10000.0    3.05     40.
    76.  0.1557E+08    5     1.0    1.0 10000.0    3.05     44.
    84.  0.1500E+08    5     1.0    1.0 10000.0    3.05     44.
    91.  0.1405E+08    5     1.0    1.0 10000.0    3.05     43.
    99.  0.1314E+08    5     1.0    1.0 10000.0    3.05     43.
   107.  0.1227E+08    5     1.0    1.0 10000.0    3.05     43.
   114.  0.1146E+08    5     1.0    1.0 10000.0    3.05     43.
   122.  0.1071E+08    5     1.0    1.0 10000.0    3.05     43.
   130.  0.1003E+08    5     1.0    1.0 10000.0    3.05     43.
   137.  0.9419E+07    5     1.0    1.0 10000.0    3.05     43.
   145.  0.8863E+07    5     1.0    1.0 10000.0    3.05     43.
   152.  0.8359E+07    5     1.0    1.0 10000.0    3.05     43.
   160.  0.7901E+07    5     1.0    1.0 10000.0    3.05     43.
```

168.	0.7483E+07	5	1.0	1.0	10000.0	3.05	42.
175.	0.7100E+07	5	1.0	1.0	10000.0	3.05	43.
183.	0.6750E+07	5	1.0	1.0	10000.0	3.05	43.
190.	0.6428E+07	5	1.0	1.0	10000.0	3.05	42.
198.	0.6131E+07	5	1.0	1.0	10000.0	3.05	42.
206.	0.5855E+07	5	1.0	1.0	10000.0	3.05	42.
213.	0.5600E+07	5	1.0	1.0	10000.0	3.05	42.
221.	0.5362E+07	5	1.0	1.0	10000.0	3.05	42.
229.	0.5139E+07	5	1.0	1.0	10000.0	3.05	41.
236.	0.4932E+07	5	1.0	1.0	10000.0	3.05	41.
244.	0.4738E+07	5	1.0	1.0	10000.0	3.05	41.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.1557E+08	76.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

C:\Lakes\Screen View\Sunnyvale South Annex site.scr

SIMPLE TERRAIN INPUTS:
   SOURCE TYPE                =         AREA
   EMISSION RATE (G/(S-M**2))  =      1.00000
   SOURCE HEIGHT (M)           =       3.0480
   LENGTH OF LARGER SIDE (M)   =      44.1960
   LENGTH OF SMALLER SIDE (M)  =      38.1000
   RECEPTOR HEIGHT (M)         =       1.6764
   URBAN/RURAL OPTION          =        URBAN
THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

   MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION


BUOY. FLUX =    0.000 M**4/S**3;  MOM. FLUX =    0.000 M**4/S**2.

*** FULL METEOROLOGY ***

**********************************
*** SCREEN DISCRETE DISTANCES ***
**********************************

*** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

  DIST     CONC             U10M   USTK  MIX HT   PLUME  MAX DIR
   (M)   (UG/M**3)   STAB  (M/S)  (M/S)    (M)   HT (M)   (DEG)
-------  ----------  ----  -----  -----  ------  ------  -------
    61.  0.6531E+07    5     1.0    1.0 10000.0    3.05     38.
    69.  0.5966E+07    5     1.0    1.0 10000.0    3.05     37.
    76.  0.5435E+07    5     1.0    1.0 10000.0    3.05     37.
    84.  0.4949E+07    5     1.0    1.0 10000.0    3.05     36.
    91.  0.4512E+07    5     1.0    1.0 10000.0    3.05     34.
    99.  0.4120E+07    5     1.0    1.0 10000.0    3.05     34.
   107.  0.3772E+07    5     1.0    1.0 10000.0    3.05     32.
   114.  0.3461E+07    5     1.0    1.0 10000.0    3.05     30.
   122.  0.3184E+07    5     1.0    1.0 10000.0    3.05     29.
   130.  0.2936E+07    5     1.0    1.0 10000.0    3.05     27.
   137.  0.2715E+07    5     1.0    1.0 10000.0    3.05     26.
   145.  0.2517E+07    5     1.0    1.0 10000.0    3.05     21.
   152.  0.2338E+07    5     1.0    1.0 10000.0    3.05     19.
   160.  0.2178E+07    5     1.0    1.0 10000.0    3.05     17.
```

168.	0.2033E+07	5	1.0	1.0	10000.0	3.05	15.
175.	0.1901E+07	5	1.0	1.0	10000.0	3.05	2.
183.	0.1782E+07	5	1.0	1.0	10000.0	3.05	0.
190.	0.1673E+07	5	1.0	1.0	10000.0	3.05	2.
198.	0.1574E+07	5	1.0	1.0	10000.0	3.05	4.
206.	0.1483E+07	5	1.0	1.0	10000.0	3.05	4.
213.	0.1400E+07	5	1.0	1.0	10000.0	3.05	1.
221.	0.1323E+07	5	1.0	1.0	10000.0	3.05	0.
229.	0.1253E+07	5	1.0	1.0	10000.0	3.05	4.
236.	0.1188E+07	5	1.0	1.0	10000.0	3.05	2.
244.	0.1128E+07	5	1.0	1.0	10000.0	3.05	0.

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	0.6531E+07	61.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****