TENTATIVE TRACT MAP NO. 74976
642 & 704 EAST FRANCISQUITO AVENUE

INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

Prepared for

CITY OF WEST COVINA
Community Development Department
Planning Division
1444 West Garvey Avenue South
West Covina, CA 91790

Prepared by

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1.0 INTRODUCTION

This section provides a project overview, environmental compliance requirements, project information, and environmental review process for the proposed Tentative Tract Map No. 74976 at 642 and 704 East Francisquito Avenue in the City of West Covina (proposed project). Discretionary actions and approvals needs to implement the proposed project are also identified in this section.

1.1 PROJECT OVERVIEW

The proposed project involves subdividing two single-family residential parcels into a total of six lots at 642 and 704 East Francisquito Avenue in the City of West Covina. The project site is approximately 81,495 square feet, is zoned Single-Family Residential (R-1), and has a General Plan designation of Neighborhood – Low Density Residential (NL).

1.2 ENVIRONMENTAL COMPLIANCE REQUIREMENTS

Section 15063(a) of the California Environmental Quality Act (CEQA) Guidelines requires the lead agency to prepare an Initial Study (IS) to determine if the proposed project may have a significant effect on the environment. The purpose of this document is to inform the City of West Covina, public agencies and interested parties of the potential environmental effects resulting from the proposed project. For the proposed project to obtain an environmental clearance in the form of a Mitigated Negative Declaration (MND) in compliance with CEQA, any potential significant adverse effects must be mitigated to a less-than-significant level. This document alone does not determine whether the proposed project will be approved. Rather, it is a disclosure document aimed at equally informing all concerned parties and fostering informed discussion and decision-making regarding all aspects of the proposed project. The City of West Covina, as the Lead Agency, will consider the information contained in this environmental document in deciding whether to approve or deny the proposed project.

1.3 PROJECT INFORMATION

Project Title/Location:	Tentative Tract Map No. 74976 642 & 704 East Francisquito Avenue West Covina, CA 91790
Lead Agency Name and Address:	City of West Covina Community Development Department Planning Division 1444 West Garvey Avenue South West Covina, CA 91790
Contact Person and Phone Number	Jo-Anne Burns, Planning Manager (626) 939-8422
Project Sponsor's Name and Address:	Kevin Lam IRN Realty 556 Las Tunas Drive #101 Arcadia, CA 91007

1.4 DISCRETIONARY ACTIONS AND APPROVALS

Discretionary actions include those local approvals or entitlements necessary to implement a project. The discretionary actions requiring for the proposed project include the following:

- Tentative Tract Map - Subdivision

1.5 ORGANIZATION OF THIS INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The content and format of this Initial Study/Mitigated Negative Declaration (IS/MND) is designed to meet the requirements of CEQA. This IS/MND is organized into the following four sections:

1.0 Introduction. This section provides an overview of the propose project, describes the environmental compliance requirements and identifies the discretionary actions and approvals needed for the proposed project.

2.0 Project Description. This section provides a description of the proposed project, identifies the location of project site, describes the surrounding land uses, and provides the estimated timeline for the construction and implementation of the proposed project.

3.0 Initial Study Checklist and Evaluation. This section contains the CEQA Guidelines Appendix G: Initial Study Checklist and identifies the level of impact under each environmental impact category. This section also includes a discussion of the environmental impacts and any mitigation measures associated with each category.

4.0 List of Preparers and Sources Consulted. This section provides a list of the consultant team members that participated, and a list of sources and references used in the preparation of this IS/MND.

2.0 PROJECT DESCRIPTION

This section provides a description of the proposed project, identifies the location of project site, describes the surrounding land uses, and provides an estimated timeline for the construction and implementation of the proposed project.

2.1 PROJECT LOCATION

PROJECT SITE

The project site is located at 642 and 704 East Francisquito Avenue in the City of West Covina, near the southwestern portion of the City. The 1.87-acre project site (Assessor's Parcel Numbers [APN] 8741-001-001 and 8741-001-002) is located on the south side of Francisquito Avenue, between Frandale Avenue and Craig Drive. The project site is relatively flat and is currently developed with two one-story single-family residences and its associated structures. The existing residential structure at 642 East Francisquito Avenue (APN 8741-001-002) is approximately 2,796 square feet in size with a 400-square foot two-car garage and a 600-square-foot three-car garage. The existing residential structure at 704 East Francisquito Avenue (APN 8741-001-001) is approximately 2,222 square feet in size with a 400-square-foot two-car garage. Landscaping is provided throughout the project site and includes several mature trees, bushes, and grass. The project site has three driveway entrances, all of which are located on Francisquito Avenue.

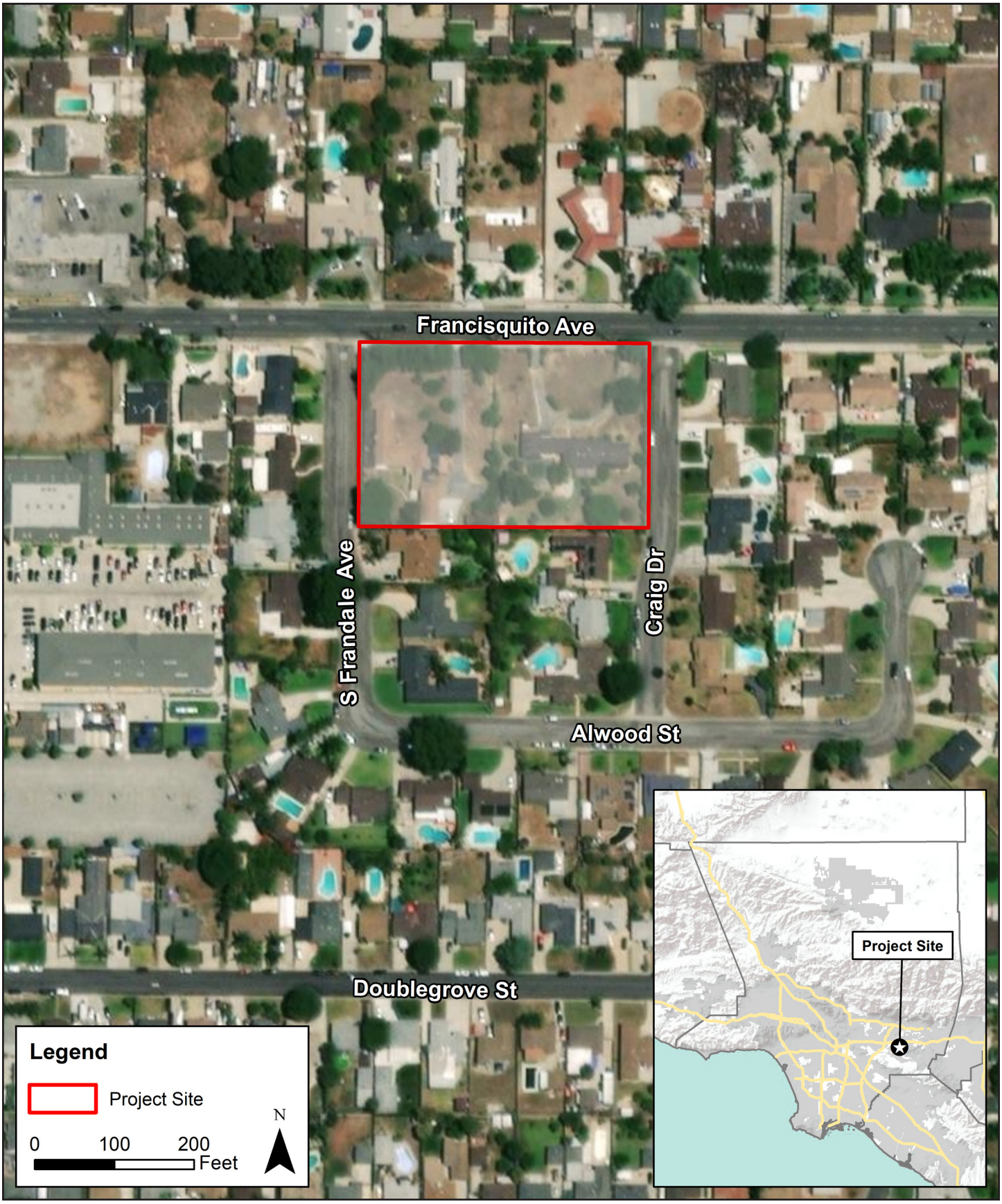
The project site is zoned Single-Family Residential (R-1, Area District II) and has a General Plan designation of Neighborhood – Low Density Residential (NL). The location of the project site is shown in **Figure 2-1**.

SURROUNDING AREA

Single-family residential uses surround the project site to the north, east, south, and west. A majority of the structures are one story, with two two-story residential structures about a block east on Francisquito Avenue. The residential properties to the east, south, and west of the project site are within the City of West Covina and are zoned R-1, Area District II with a General Plan designation of NL. The residential properties to the north of the project site are in the unincorporated Valinda community of Los Angeles County. These properties are zoned Light Agriculture (A-1-1000) by Los Angeles County. Commercial uses are located a block west of the project site at the corner of Walnut Avenue and Francisquito Avenue. A church is also located a block west of the project site on Walnut Avenue. An aerial photograph depicting the project site and the surrounding area is presented in **Figure 2-2**.

2.2 DESCRIPTION OF THE PROPOSED PROJECT

The project site is approximately 81,495 square feet and currently contains two one-story single-family residences and their associated structures on two separate lots. The proposed project involves subdividing the two existing single-family residential parcels into a total of six lots. The new lots would be rectangular in shape. **Figure 2-3** presents the Tentative Tract Map for the proposed project, and **Table 2-1** summarizes the size of each lot that is proposed to be subdivided, along with the maximum allowable square footage of single-family residential structures that could be built on each proposed lot based on the City's Zoning Code.



Source: TAHA, 2020.

taha environmental planners

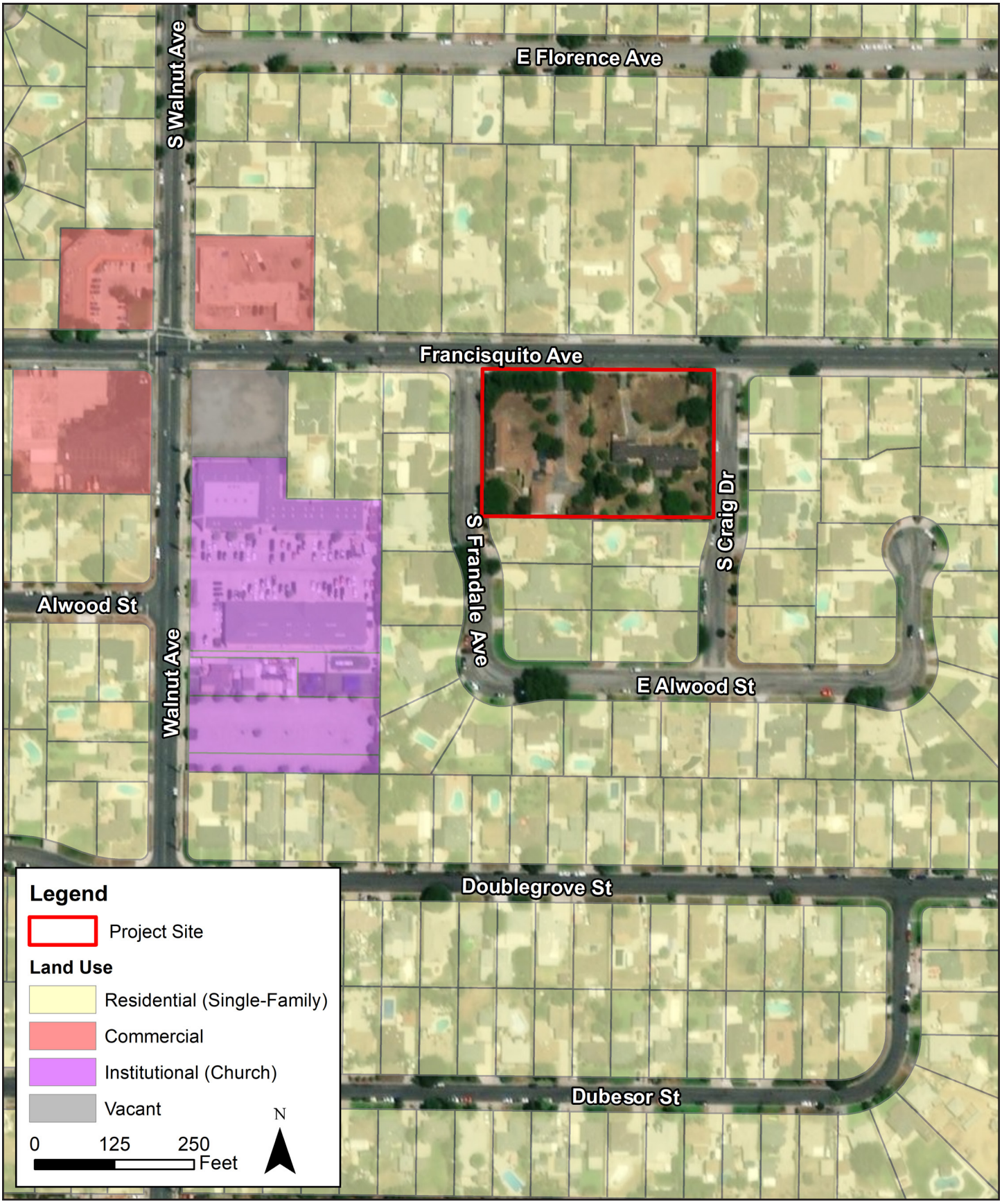
TAHA 2020-089

Tentative Tract Map No. 74976 (642 & 704 E. Francisquito Avenue)
Initial Study/Mitigated Negative Declaration

CITY OF WEST COVINA PLANNING DIVISION

FIGURE 2-1

PROJECT LOCATION



Source: TAHA, 2020.

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Tentative Tract Map No. 74976 (642 & 704 E. Francisquito Avenue)
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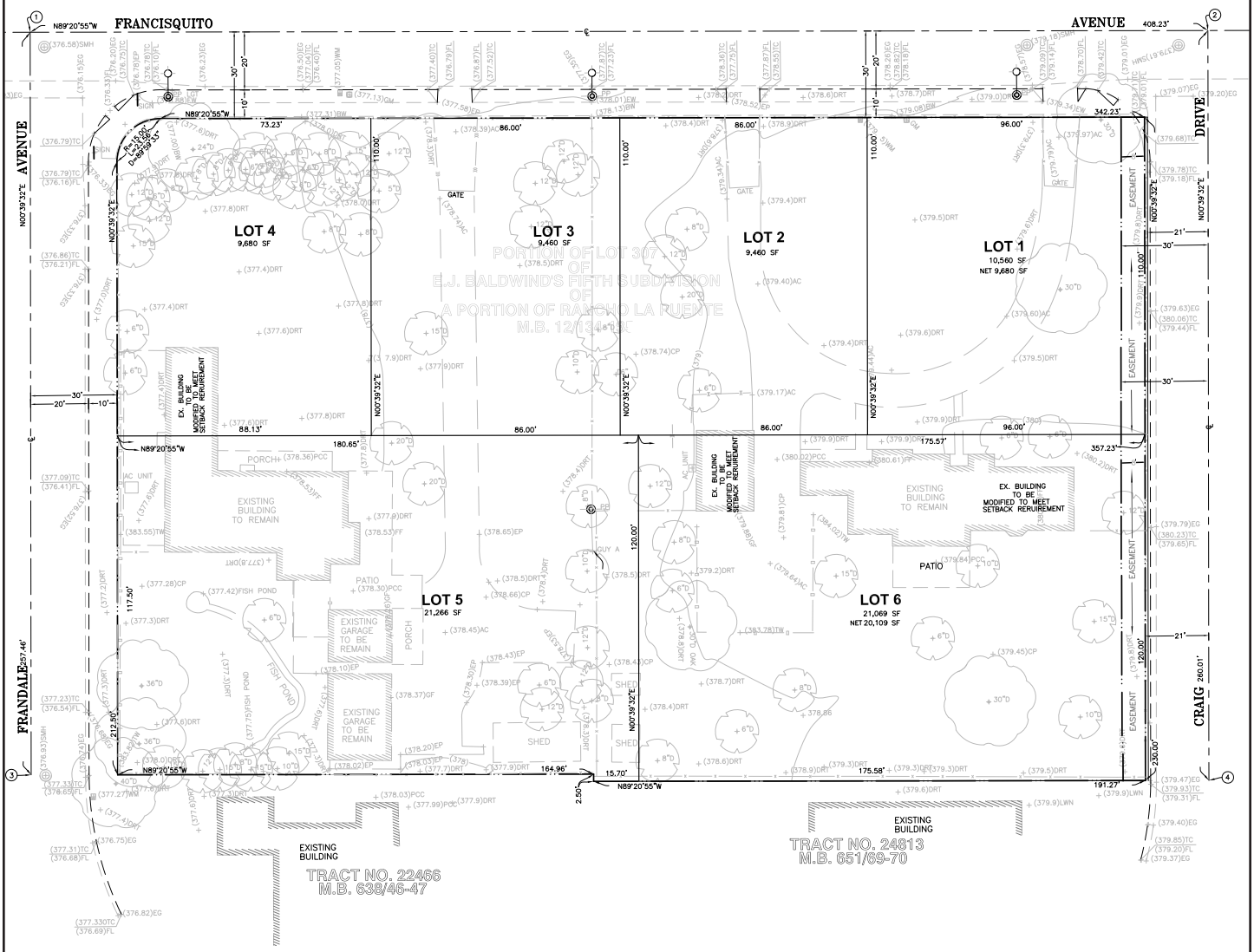
CITY OF WEST COVINA PLANNING DIVISION

FIGURE 2-2

SURROUNDING LAND USE



Source: CaliLandEngineering, Inc., 2020.

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Tentative Tract Map No. 74976 (642 & 704 E. Francisquito Avenue)
Initial Study/Mitigated Negative Declaration

CITY OF WEST COVINA PLANNING DIVISION

FIGURE 2-3

TENTATIVE TRACT MAP

TABLE 2-1: PROPOSED PROJECT SQUARE FOOTAGE

Lot	Proposed Lot Size (square feet)	Maximum Allowable Building Size (square feet)
1	10,560 9,680 (net)	Main Residential Structure: 3,696 Accessory Structures: 1,000 Total Allowable Square Footage: 4,696
2	9,460	Main Residential Structure: 3,311 Accessory Structures: 1,000 Total Allowable Square Footage: 4,311
3	9,460	Main Residential Structure: 3,311 Accessory Structures: 1,000 Total Allowable Square Footage: 4,311
4	9,680	Main Residential Structure: 3,388 Accessory Structures: 1,000 Total Allowable Square Footage: 4,388
5	21,266	Main Residential Structure: 4,000 Accessory Structures: 1,000 Total Allowable Square Footage: 5,000
6	21,069 20,109 (net)	Main Residential Structure: 4,000 Accessory Structures: 1,000 Total Allowable Square Footage: 5,000

SOURCE: City of West Covina, *City of West Covina Municipal Code Chapter 26 – Zonin*g, 2018.

With implementation of the proposed project, the existing single-family residential structures on the project site would be located on proposed Lots 5 and 6. Portions of the existing structures would be demolished to meet the 25-foot front and rear yard and 5-foot side yard setback requirements as identified in Article VIII, Division 2 of the City's Zoning Code. Approximately 1,200 square feet of the existing structure on 642 East Francisquito Avenue and approximately 400 square feet of the existing structure on 704 East Francisquito Avenue would be demolished.

No new structures or house additions are currently being proposed on Lots 1 through 6. However, it is reasonably foreseeable that if the proposed Tentative Tract Map is approved, new single-family residential homes would be built on proposed Lots 1 through 4 and the existing single-family residential homes on proposed Lots 5 and 6 could be expanded in the future to be larger in size, particularly since the existing residential structures would be smaller than permitted by the City's Zoning Code.

CEQA Guidelines Section 15064(d) requires that a lead agency evaluate the environmental effects associated with the direct and indirect physical changes in the environment which may be caused by a project. CEQA Guidelines Section 15064(d)(2) states that "[a]n indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project." Additionally, CEQA Guidelines Section 15064(d)(3) states that "[a]n indirect physical change is to be considered only if that change is reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable." Since it is reasonably foreseeable that new and/or expanded residential structures could be built as a result of the proposed project, the analysis in this IS/MND assumes that new single-family residential structures would be constructed on proposed Lots 1 through 4 and the existing homes on proposed Lots 5 and 6 would be expanded to be larger in size. For the purposes of this analysis, it is assumed that the new structures and home expansions on the project site would be built to its maximum allowable square footage based on the City's Zoning Code. It is possible, however, that future structures on each proposed lot could be smaller than what is allowed by the City's Zoning Code.

The maximum allowable square footage of single-family residential structures that could be built on each proposed lot based on the City's Zoning Code are shown in **Table 2-1**.

2.3 CONSTRUCTION ACTIVITIES AND SCHEDULE

Construction activities include the demolition and modification of portions of the existing structures on the project site to meet the City's setback requirements for proposed Lots 5 and 6, as well as site preparation, grading, building construction, and paving on proposed Lots 1 through 6. The analysis in this IS/MND assumes that the new or expanded residential structures that could be constructed on each proposed lot would be built to its maximum size as permitted by the City's Zoning Code, which is shown in **Table 2-1**.

Construction is anticipated to last approximately 10 to 12 months. Demolition of the existing buildings to meet the City's setback requirements is estimated to take approximately one week to complete. On all proposed lots, site preparation is expected to last approximately one week, grading activities are expected to take approximately two to three weeks, and building construction is anticipated to take approximately nine to 11 months to complete. No import or export of soil is expected, and no substantial excavation activities would occur. The proposed project is assumed to be operational in October 2022.

Construction would occur six days a week. In accordance with Section 15-95 of the City of West Covina Municipal Code (WCMC), construction activities would be limited to the hours between 7:00 a.m. and 8:00 p.m. daily.

3.0 INITIAL STUDY CHECKLIST AND EVALUATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency):

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date: 2/25/2021
Jo-Anne Burns	City of West Covina
Printed Name	For

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.1 AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☑
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

a) **No Impact**. A significant impact would occur if the proposed project would have a substantial adverse effect on a scenic vista. No scenic vistas are available on the project site or within the surrounding area. The nearest scenic vista is at San Jose Hills, approximately 3.2 miles east of the project site.[1] However, views of San Jose Hills from the project site are limited due to intervening buildings and existing landscaping. Additionally, any structures that would be constructed on the project site would be limited to 25 feet by the City's Zoning Code and would not obstruct any scenic vistas. Therefore, no impact would occur.

b) **No Impact**. A significant impact would occur if the proposed project would substantially damage scenic resources within a State Scenic Highway. The project site is not located on or within the vicinity of a scenic highway. The nearest state-designated scenic highway is Angeles Crest Highway (State Route 2), which is approximately 16 miles north of the project site.[2] The project site is not within the viewshed of this scenic highway. Therefore, no impact would occur.

c) **No Impact**. The project site is located in an urbanized area as defined by Public Resources Code Section 21071, and a significant impact would occur if the proposed project would conflict with applicable zoning and other regulations governing scenic quality. According to the City's General Plan, the project site is designated as Neighborhood Low Density Residential (NL) and is zoned Single-Family Residential (R-1, Area District II). The area surrounding the project site consists of primarily one-story single-family residences, with a few two-story single-family residential structures. Implementation of the proposed project would result in the development of single-family residential uses on the project site that would be similar in scale and massing as other single-family residential structures in the surrounding area. Any structures that would be constructed on the project site would be required to comply with the City's Zoning Code

[1]City of West Covina, *General Plan*, December 2016.
[2]California Department of Transportation, *Scenic Highways*, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, accessed October 2020.

(including the zoning regulations for R-1, Area District II) and other applicable regulations governing scenic quality. Therefore, no impact would occur.

d) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Due to the suburban setting of the project site, a moderate level of ambient nighttime light already exists on the project site. Existing nighttime lighting sources include streetlights, vehicle headlights, and interior and exterior building illumination. Lighting that would be provided on the project site would be consistent with existing lighting on the project site and from the surrounding single-family residential properties. In addition, the proposed project does not include features that would be a major source of glare. Any light and glare produced by the proposed project would commensurate with existing lighting levels and glare on the project site and its vicinity. Therefore, the proposed project would not create new sources of substantial light or glare to the area, and impacts would be less than significant.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.2 AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☑
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☑
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

a-b) **No Impact**. A significant impact would occur if the proposed project would convert valued farmland to non-agricultural uses, conflict with existing agricultural zoning, or be located on agricultural parcels under a Williamson Act contract. Due to its urban setting, the project site and its surroundings are not included in the Farmland Mapping and Monitoring Program of the California Department of Conservation.[3] In addition, the project site is not located within a zone designated for agricultural use or an area that is designated as Williamson Act contract lands. Although the properties north of the project site are zoned Light Agricultural by Los Angeles County, these properties consist of single-family residential homes. No agricultural uses or related operations are present within the project site or in the surrounding area. Therefore, no impact on farmland would occur.

c-d) **No Impact**. A significant impact would occur if the proposed project would conflict with existing zoning for forest land or timberland, cause the rezoning of forest land or timberland, result in the loss of forest land, or convert forest land to non-forest use. The project site is located within an urban area that is not zoned as forest land. There are no forest land or

[3]California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed October 2020.

forest resources located on the project site or in the surrounding area. Therefore, no impact would occur.

e) **No Impact**. A significant impact would occur if the proposed project would cause the conversion of farmland or forest land to non-agricultural or forest use, respectively. As discussed in Checklist Responses 3.2a through 3.2d, no agricultural or forestry operations occur on the project site or its vicinity. The proposed project would not introduce any changes that would result in the conversion of farmland or forest land to non-agricultural or forest use, respectively. Therefore, no impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region air basin is nonattainment under an applicable federal or state ambient air quality standard?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. The currently applicable air quality plan is the South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP). The SCAQMD CEQA Air Quality Handbook identifies two key indicators of consistency with the AQMP: 1) whether the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment, of air quality standards or the interim emission reductions specified in the air quality plan; and 2) whether the project would exceed the forecasted growth incorporated into the AQMP.[4]

Proposed Project Emissions

With regards to the first criterion, SCAQMD has developed regionally specific air quality significance thresholds to assess potential impacts that may result from construction and operation of projects. Daily emissions of volatile organic compounds (VOC), nitrogen oxides (NO_X), carbon monoxide (CO), sulfur oxides (SO_X), and respirable particulate matter less than 10 microns in diameter (PM_{10}) and fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) should be quantified and assessed on both regional and localized scales, in accordance with SCAQMD methodology. Proposed project emissions were estimated using the SCAQMD-recommended California Emissions Estimator Model (CalEEMod, version 2016.3.2).

Construction

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and dump trucks traveling to and from the project site. Fugitive dust emissions would primarily result from demolition, site preparation, and grading activities. NO_X emissions would predominantly result from the use of construction equipment and dump truck trips. The assessment of construction air quality impacts considers all of these emissions sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

[4]South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

It is mandatory for all construction projects in the South Coast Air Basin (SCAB) to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

Table 3-1 shows the maximum daily regional (on- and off-site) emissions associated each construction activity. Maximum daily regional emissions would remain below all applicable SCAQMD regional thresholds for construction.

TABLE 3-1: ESTIMATED REGIONAL CONSTRUCTION EMISSIONS

	Maximum Daily Emissions (Pounds Per Day)					
Construction Activity	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
DEMOLITION						
On-Site Emissions	2.0	19.7	14.5	<0.1	1.1	1.0
Off-Site Emissions	0.1	0.5	0.5	<0.1	0.1	<0.1
Total	**2.1**	**20.2**	**15.0**	**<0.1**	**1.3**	**1.0**
SITE PREPARATION						
On-Site Emissions	1.7	18.8	8.1	<0.1	3.4	2.1
Off-Site Emissions	<0.0	<0.0	0.4	<0.1	0.1	<0.1
Total	**1.7**	**18.8**	**8.4**	**<0.1**	**3.5**	**2.1**
GRADING						
On-Site Emissions	1.7	18.8	8.1	<0.1	3.4	2.1
Off-Site Emissions	<0.0	<0.0	0.4	<0.1	0.1	<0.1
Total	**1.7**	**18.8**	**8.4**	**<0.1**	**3.5**	**2.1**
BUILDING CONSTRUCTION						
On-Site Emissions	1.8	13.6	12.9	<0.1	0.7	0.7
Off-Site Emissions	0.2	1.1	1.8	<0.1	0.5	0.1
Total	**2.0**	**14.7**	**14.6**	**<0.1**	**1.2**	**0.8**
PAVING						
On-Site Emissions	0.7	6.8	8.8	<0.1	0.3	0.3
Off-Site Emissions	0.1	0.1	0.7	<0.1	0.2	0.1
Total	**0.8**	**6.8**	**9.5**	**<0.1**	**0.6**	**0.4**
ARCHITECTURAL COATING						
On-Site Emissions	8.7	2.8	3.6	<0.1	0.2	0.2
Off-Site Emissions	<0.0	<0.0	0.3	<0.1	0.1	<0.1
Total	**8.8**	**2.8**	**4.0**	**<0.1**	**0.3**	**0.2**
PAVING + ARCHITECTURAL COATING OVERLAP						
On-Site Emissions	9.4	9.6	12.4	<0.1	0.5	0.5
Off-Site Emissions	0.1	0.1	1.0	<0.1	0.3	0.1
Total	**9.5**	**9.7**	**13.5**	**<0.1**	**0.8**	**0.6**
REGIONAL ANALYSIS						
Maximum Daily Emissions	**9.5**	**20.2**	**15.0**	**<0.1**	**3.5**	**2.1**
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Emissions modeling files can be found in **Appendix A**.
SOURCE: TAHA, 2021.

In addition to maximum daily regional emissions, maximum daily localized (on-site) emissions were quantified for each construction activity. **Table 3-2** presents the results of emissions modeling from on-site construction sources. Although the project site is 1.9 acres, for the purposes of worst-case analysis, this air quality analysis uses the SCAQMD localized significance thresholds (LSTs) for a one-acre site since the one-acre LSTs are lower than the LSTs for a two-acre site. The selected LSTs are for sites that are in Sensitive Receptor Area 11, in which the project site is located, and have sensitive receptors within 25 meters. As shown in **Table 3-2**, maximum daily on-site emissions during proposed project construction would not exceed the LSTs for construction.

TABLE 3-2: ESTIMATED LOCALIZED CONSTRUCTION EMISSIONS

Construction Activity	Maximum Daily On-Site Emissions (Pounds Per Day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
EMISSIONS ANALYSIS				
Demolition	19.7	14.5	1.1	1.0
Site Preparation	18.8	8.1	3.4	2.1
Grading	18.8	8.1	3.4	2.1
Building Construction	13.6	12.9	0.7	0.7
Paving + Architectural Coating	9.6	12.4	0.5	0.5
IMPACT ANALYSIS				
Maximum Daily Localized Emissions	**19.7**	**14.5**	**3.4**	**2.1**
Localized Significance Threshold /a/	83	673	5	4
Exceed Threshold?	**No**	**No**	**No**	**No**

Emissions modeling files can be found in **Appendix A**.

/a/ Localized significance threshold (LST) are for a one-acre construction site in Sensitive Receptor Area 11, in which the project site is located, with sensitive receptors located within 25 meters.

SOURCE: TAHA, 2021.

As the SCAQMD regional and localized construction thresholds would not be exceeded, construction of the proposed project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations.

Operation

The proposed project would generate regional operational emissions from vehicle trips and energy use. According to the traffic analysis prepared by KOA in December 2020, which is provided in Appendix C, the proposed project would generate 57 daily vehicle trips. CalEEMod program estimates emissions from energy use based on the land use type and size of the project. **Table 3-3** presents daily operational emissions for the proposed project. Daily operational emissions associated with the proposed project are not expected to exceed any of the applicable SCAQMD thresholds for operational emissions. Therefore, operations of the proposed project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations.

TABLE 3-3: ESTIMATED DAILY OPERATIONAL EMISSIONS

Operational Activity	Maximum Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
EMISSIONS ANALYSIS						
Area Sources	0.6	0.5	0.7	<0.0	<0.0	<0.0
Energy Sources	<0.0	<0.0	<0.0	<0.0	<0.0	<0.0
Mobile Sources	0.1	0.5	1.2	<0.0	0.4	0.1
IMPACT ANALYSIS						
Daily Operational Emissions	**0.7**	**1.0**	**2.0**	**<0.0**	**0.4**	**0.2**
Regional Threshold	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Emissions modeling files can be found in **Appendix A**.
SOURCE: TAHA, 2020.

AQMP Growth Forecast

The second AQMP consistency criterion requires that the proposed project not exceed the growth assumptions in the AQMP. The underlying growth projections in the AQMP are derived from SCAG projections for cities and unincorporated areas in the AQMD jurisdiction. According to the US Census, the average household size in West Covina is 3.47 persons per household. Based on this information, the proposed project is estimated to result in a population increase of approximately 21 people. The population increase associated with the proposed project would not interfere with regional and City growth projections, which are orders of magnitude greater than the population and housing numbers associated with the proposed project. Therefore, the proposed project is not expected to result in growth that would exceed the projections incorporated into the AQMP.

Summary

As the proposed project would not exceed any of the SCAQMD thresholds and would not exceed the growth assumptions in the AQMP, the proposed project would not conflict with or obstruct implementation of the AQMD. Therefore, a less-than-significant impact is anticipated.

b) **Less-Than-Significant Impact**. The Los Angeles County portion of SCAB is designated as nonattainment of the federal and state ambient air quality standards for O_3, PM_{10}, and $PM_{2.5}$. The SCAQMD CEQA Air Quality Handbook advises that for both construction and operational activities, if a project exceeds the identified project-level significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed in Response to Checklist Question 3.3a, project-related construction and operational emissions would not exceed any of the applicable SCAQMD significance thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase of nonattainment pollutants.

c) **Less-Than-Significant Impact**. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. Land uses that contain these population groups are referred to as sensitive receptors. Sensitive receptors within the vicinity of the project site primarily consist of residences. These sensitive receptors could be exposed to pollutant concentrations during construction and operations of the proposed project.

Construction

With regards to air toxic emissions, carcinogenic risks, and non-carcinogenic hazards, the use of heavy-duty construction equipment and dump trucks during construction activities would release diesel particulate matter (PM) to the atmosphere through exhaust emissions. Diesel PM is a known carcinogen, and extended exposure to elevated concentrations of diesel PM can increase excess cancer risks in individuals. However, carcinogenic risks are typically assessed over timescales of several years to decades, as the carcinogenic dose response is cumulative in nature. Short term exposures to diesel PM would have to involve extremely high concentrations in order to exceed the SCAQMD air quality significance threshold of 10 excess cancers per million. Over the course of construction activities, average diesel PM emissions from on-site equipment would be approximately 0.7 pounds per day. It is unlikely that diesel PM concentrations would be of any public health concern during the 10- to 12-month construction period, and diesel PM emissions would cease upon completion of construction activities. Therefore, the proposed project would not expose sensitive receptors to substantial toxic air containments (TAC) emissions during construction.

As discussed in Response to Checklist Question 3.3a, construction of the proposed project would not exceed the applicable SCAQMD LSTs. The LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the applicable federal or state ambient air quality standard. Projects that would not exceed the LSTs generally would not expose sensitive receptors to substantial pollutant concentrations. As the proposed project would not expose sensitive receptors to substantial TAC emissions and would not exceed the applicable SCAQMD LSTs during construction, a less-than-significant impact is anticipated.

Operation

The proposed project does not include an industrial component that would constitute a new substantial stationary source of operational air pollutant emissions. Operations of the proposed project also do not include uses that would generate a substantial number of heavy-duty truck trips within the region. No substantial source of TAC emissions is associated with operations of the proposed project. Operations of the proposed project does not include any uses that would expose sensitive receptors to substantial pollutant concentrations, including TAC emissions. Therefore, a less-than-significant impact is anticipated.

d) **Less-Than-Significant Impact**. Odors are the only potential construction and operational emissions other than the sources addressed in Response to Checklist Questions 3.3a through 3.3c.

Construction

Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of architectural coatings, and other interior and exterior finishes. Odors from these sources would be localized, generally confined to the immediate area surrounding the project site, and temporary in nature. Odors would not persist beyond the termination of construction activities. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites. In addition, as construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. Therefore, the proposed project would result in a less-than-significant impact related to construction odors.

Operation

The proposed project does not involve any uses or industrial operations that are typically associated with odor complaints, such as agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding.[5] The single-family residences that could be built on the project site would produce some odors and smells associated with the preparation of food, which would be typical of the types of odors that currently exist in the residential neighborhood. Therefore, the proposed project would result in a less-than-significant impacts related to operations odors.

[5]South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.4 BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☑
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☑	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☑	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	☐	☐	☑	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

a) **No Impact**. A significant biological impact would occur if the proposed project would cause the loss or destruction of individuals of a candidate, sensitive, or special status species or through the degradation of sensitive habitat. The project site is located in a suburban area and surrounded primarily by residential uses. Plant life on the project site is limited to non-native and ornamental species used for landscaping. Animal life is comprised of common bird, insect, reptile, and small mammal species. The California Natural Diversity Database (CNDDB), a computerized database that identifies past occurrences of species of special concern (e.g., plants, animals, and communities that are rare, threatened, or endangered) does not identify any candidate, sensitive, or special status species on the project site or within approximately 0.4 miles of the project site.[6] Additionally, the entire project site has been disturbed and developed (i.e., residential structures, ornamental landscaping, and paved areas). Suitable habitat for special-status wildlife species do not occur within the project site. Since no special-status species were identified or have high likelihood of occurring on the project site, it is unlikely that the proposed project would result in the loss or destruction of individual candidate, sensitive, or

[6]California Department of Fish and Wildlife, *California Natural Diversity Database*, https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018408-cnddb-in-bios, accessed October 2020.

special status species or the degradation of sensitive habitat. Therefore, the proposed project would not have an effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS), and no impact would occur.

b) **No Impact**. A significant impact would occur if any riparian habitat or natural community would be lost or destroyed as a result of the proposed project. As discussed in Response to Checklist Question 3.4a, the project site is completely disturbed and is located within a urbanized area surrounded primarily by residential uses. The project site does not contain any riparian habitat or features. No streams or water courses necessary to support riparian habitat are present on the project site. Additionally, CNDDB has not listed any riparian habitat or other sensitive natural communities on or in the vicinity of the project site. Therefore, the proposed project is not expected to result in the loss or destroy any riparian habitat or other sensitive natural communities, and no impact would occur.

c) **No Impact**. A significant impact would occur if federally protected wetlands would be modified or removed as a result of the proposed project. The project site does not contain any state or federally protected wetlands. The project site is located in an urbanized area, and no waterbodies are located on or in the vicinity of the project site. Therefore, the proposed project would not have any effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Therefore, no impact would occur.

d) **Less-Than-Significant Impact with Mitigation Incorporated**. A significant impact would occur if the proposed project would interfere with, or remove access to, a migratory wildlife corridor or impede use of native wildlife nursery sites. The project site and the surrounding area are highly developed with urban uses, and no wildlife corridors are known to exist on or immediately surrounding the project site. The project site does not contain any waterbodies that would contain migratory fish or other wildlife species. If migratory birds were to traverse the project site, the birds would likely utilize mature vegetation on the project site, some of which may potentially provide nesting sites for migratory birds. Several mature trees are located within the project site and could potentially be removed during construction. Tree removal on the project site could potentially affect migratory birds and would be required to comply with the Migratory Bird Treaty Act (MBTA). Under MBTA, if tree removal activities occur during the nesting season (February 15 through August 15), a biological monitor would need to be present during the removal activities to ensure that no active nests would be adversely affected. Implementation of Mitigation Measure **BR-1** would be required to ensure that the requirements of MBTA are followed. With implementation of Mitigation Measure **BR-1**, the proposed project is not expected to interfere with wildlife movement or impede the use of native wildlife nursery sites. Therefore, a less-than-significant impact would occur with implementation of Mitigation Measure **BR-1**.

e) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project were inconsistent with local regulations pertaining to biological resources. As discussed in Response to Checklist Question 3.4d, several trees on the project site could potentially be removed to develop single-family residential structures. Tree removal on the project site would be required to comply with the City's tree preservation ordinance (WCMC, Chapter 26, Article VI, Division 9 – Preservation, Protection and Removal of Trees), including the approval of a tree removal permit for removal of trees that are either heritage or significant trees. As defined by the City's tree preservation ordinance, heritage trees are any trees that are identified as such by planning commission resolution

or Southern California black walnut tree species located in the San Jose Hills as found within the City's jurisdictional boundaries. Significant trees are defined as trees located on a private or public property that meets one or more of the following requirements:

- Is located in the front yard of a lot or parcel and has a caliper of one foot or more;
- Is located in the street-side yard of a corner lot and has a caliper of one foot or more;
- Is located anywhere on a lot, has a caliper of six inches or more, and is any Oak tree native to California, California Sycamore, or American Sycamore.

As the project applicant would be required to comply with the City's tree preservation ordinance, the proposed project would not conflict with any local policies or ordinances protecting biological resources.[7] Therefore, a less-than-significant impact would occur.

f) **No Impact**. A significant impact would occur if the proposed project were inconsistent with any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP) or other approved local, regional, or state habitat conservation plan. The project site is located in an urbanized area and surrounded primarily by residential uses. The project site is not located within or adjacent to the boundaries of any HCPs, NCCPs, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

MITGATION MEASURES

BR-1 All on-site tree removal shall be performed prior to or after the bird-breeding season of February 1st through August 15th (i.e., only between August 16 and January 31). If clearing/vegetation removal is planning to occur during the breeding season, a pre-construction nest survey shall be conducted one week prior to any clearing. Work may proceed only if no active bird nests are detected. By avoiding clearing during the bird-breeding season or performing pre-construction surveys to ensure no active nests are present prior to clearing,

[7]California Department of Fish and Wildlife, *California Natural Diversity Database*, https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018408-cnddb-in-bios, accessed October 2020.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.5 CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☑
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☑

a) **No Impact**. A significant impact would occur if the proposed project would remove or substantially alter the significance of a historical resource. CEQA Guidelines Section 15064.5 generally defines a historical resource as any object, building, structure, site, area, place, record, or manuscript determined to be historically significant or significant in the architectural or cultural annals of California. Historical resources are further defined as being associated with significant events, important persons, or distinctive characteristics of a type, period or method of construction; representing the work of an important creative individual; or possessing high artistic values. The City also maintains a list of local significant resources. The existing buildings on the project site were built in 1948 and are not listed or eligible for listing in the California Register of Historic Resources. Additionally, the buildings are not listed in the City's 2006 Historic Context Report[8] and the 2019 Historic Resource Inventory Update,[9] both of which identify and document historical and potentially historical resources in the City. Therefore, the proposed project would not cause a substantial adverse change in significance of a historical resource, and no impact would occur.

b) **No Impact**. A significant impact would occur if a known or unknown archaeological resource would be removed, altered, or destroyed as a result of the proposed project. CEQA Guidelines Section 15064.5 defines significant archaeological resources as resources which meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources associated with a scientifically recognized important prehistoric or historic event or person. The project site is located in an urbanized area that has been previously disturbed. Any surficial archaeological resources that may have existed on the project site are likely to have been previously disturbed or removed. Future development that would occur on the project site would be limited to single-family related structures, and excavation activities would be limited to a few feet below existing surface. The proposed project does not involve deep levels of excavation and, thus, is not expected to disturb native soil. Any project-related excavation is not expected to disturb any undiscovered archaeological resources. Therefore, no impact would occur.

[8]City of West Covina, *2016 Historic Context Report*, 2016, available at https://www.westcovina.org/departments/community-development/planning-division/historic-preservation, accessed October 2020.

[9]City of West Covina, *Historic Context Statement, 1945-1978 & Historic Resource Inventory Update*, December 2019, available at https://www.westcovina.org/departments/community-development/planning-division/historic-preservation, accessed October 2020.

c) **No Impact**. A significant impact would occur if previously interred human remains would be disturbed during excavation of the project site. While no formal cemeteries, other places of human interment, or burial grounds or sites are known to exist within the project site, there is always a possibility that human remains may be unexpectedly encountered during construction. In the event that human remains are encountered, the proposed project would be required to comply with Section 7050.5 of the California Health and Safety Code. If human remains of Native American origin are discovered during construction, the proposed project would also be required to comply with Public Resources Code Section 5097 relating to the handling of Native American human remains. With compliance of the State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097, no impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.6 ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☑	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☑	☐

a-b) Less-Than-Significant Impact. The main forms of available energy supply are electricity, natural gas, and oil. During construction of the proposed project, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control, powering lights, electronic equipment, or other construction activities that require electrical power. Construction activities typically do not involve the consumption of natural gas. Construction activities would consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment, round-trip construction worker travel to the project site, and delivery and dump truck trips. Construction activities would comply with California Air Resources Board (CARB) "In-Use Off-Road Diesel Fueled Fleets Regulation," which limits engine idling times to reduce harmful emissions and reduce wasteful consumption of petroleum-based fuel. Additionally, the proposed project would comply with the California Renewable Portfolio Standard and the Clean Energy and Pollution Reduction Act of 2015. Compliance with local, state, and federal regulations would reduce short-term energy demand during construction of the proposed project's construction, and construction of the proposed project would not result in a wasteful or inefficient use of energy.

During operations of the proposed project, Southern California Edison would provide electricity and Southern California Gas Company would provide natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for various uses, including but limited to interior and exterior building lighting; heating, ventilation, and air conditioning; electronic equipment; machinery; appliances; security systems; and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by single-family residential uses. However, the proposed project would not result in the use of equipment that would be more energy intensive than those used for comparable activities or the use of equipment that would not conform to current emissions standards and related fuel efficiencies.

In September 2011, the City of West Covina adopted an Energy Action Plan to guide the City toward attainable conservation goals that may also significantly reduce the impact of greenhouse gas (GHG) emissions within the community. The Energy Action Plan identifies several policies related to energy efficiency and conservation, including energy and water conservation design features in new development projects. The proposed project would be consistent with the Energy Action Plan by complying with the California Building Code (Title 24) and the California Green Building Standards Code (CalGreen). CalGreen is the first statewide Green Building Code and lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through

improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, to divert 50 percent of construction waste from landfills to recycling, and to use low-pollutant paints, carpets, and floors. As the proposed project would not result in a wasteful or inefficient use of energy, would comply CalGreen, and be consistent with the Energy Action Plan, a less-than-significant impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.7 GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☑	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☑	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑

a.i) **No Impact**. A significant impact would occur if the proposed project would exacerbate existing environmental conditions by increasing the potential to expose people or structures to the rupture of a known earthquake fault. The Alquist-Priolo Earthquake Fault Zoning Act regulates development near active faults to mitigate the hazard of surface fault rupture. It prohibits the location of most structures for human occupancy across the trace of active faults. The Act also establishes Earthquake Fault Zones and requires geologic/seismic studies of all proposed developments within 1,000 feet of the zone. The Earthquake Fault Zones are delineated and defined by the State Geologist and identify areas where potential surface rupture along a fault could occur.

According to the California Department of Conservation Earthquake Zones of Required Investigation map for the Baldwin Park Quadrangle, the project site is not located within the Alquist-Priolo Special Studies Zone, and no trace of any known active or potentially active fault passes through the project site.[10] The proposed project does not involve any activities that would potentially exacerbate existing environmental conditions so as to increase the potential to expose people or structures to the rupture of a known earthquake fault. The type of development that would occur on the project site with implementation of the proposed project is typical of urban environments and would not involve deep excavation into the Earth or boring of large areas creating unstable seismic conditions or stresses in the Earth's crust that would result in the rupture of a fault. Therefore, no impact would occur.

a.ii) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would exacerbate existing environmental conditions by increasing the potential to expose people or structures to substantial adverse effects related to strong ground shaking from severe earthquakes. As with all properties in the seismically active Southern California region, the project site is susceptible to ground shaking during a seismic event. The ground motion characteristics of any future earthquakes in the region would depend on the characteristics of the generating fault, the distance to the epicenter, the magnitude of the earthquake, and the site-specific geologic conditions. The proposed project does not include activities that would increase the potential to expose people or structures to adverse effects involving strong seismic ground shaking. Additionally, the design and construction of any buildings on the project site would be required to conform to the California Building Code seismic standards, as well as all other applicable codes and standards to reduce impacts from strong seismic ground shaking. Therefore, a less-than-significant impact would occur.

a.iii) **No Impact**. A significant impact would occur if the proposed project would exacerbate existing environmental conditions by increasing the potential to expose people or structures to substantial adverse effects related to seismic-related ground failure, including liquefaction. Liquefaction typically occurs when a saturated or partially saturated soil becomes malleable and loses strength and stiffness in response to an applied stress caused by earthquake shaking or other sudden change in stress conditions. Soil liquefaction occurs when loose, saturated, granular soils lose their inherent shear strength due to excess water pressure that builds up during repeated movement from seismic activity. Liquefaction usually results in horizontal and vertical movements from the lateral spreading of liquefied materials and post-earthquake settlement of liquefied materials. According to the California Department of Conservation's Earthquake Zones of Required Investigation map for the Baldwin Park Quadrangle, the project site is not located within a liquefaction hazard zone.[11] Additionally, any structures to be constructed on the project site are require to conform with the California Building Code, which is designed to assure safe construction and includes building foundation requirements appropriate to site conditions. Therefore, no impact would occur.

a.iv) **No Impact**. A significant impact would occur if the proposed project would exacerbate existing environmental conditions by increasing the potential to expose people or structures to substantial adverse effects related to landslides. According to the California Department of Conservation's Earthquake Zones of Required Investigation map for the Baldwin Park Quadrangle, the project site is not located within an earthquake-induced

[10]California Department of Conservation, *Earthquake Zone of Required Investigation: Baldwin Park Quadrangle*, March 25, 1999.
[11]*Ibid.*

landslide area.[12] Additionally, the project site and its surrounding area are relatively flat. Therefore, no impact would occur.

b) **Less-Than-Significant Impact**. A significant impact would occur if construction activities or future uses of the proposed project would result in substantial soil erosion or loss of topsoil. During ground disturbing activities, such as grading, the project site could potentially be subject to soil erosion or loss of topsoil. However, the proposed project would be required to comply with local, state, and federal regulations and standards related to minimizing potential erosion impacts, including the latest requirements of the City-enforced National Pollution Discharge Elimination System (NPDES), best management practices (BMPs) and applicable pollution control and erosion protection measures pursuant to WCMC Chapter 9 Articles II and III of the WCMC. Therefore, a less-than-significant impact would occur.

c) **No Impact**. A significant impact would occur if the proposed project would cause geologic unit or soil on the project site to become unstable or, if the project site is on unstable geologic unit or soil, the proposed project would exacerbate existing conditions so as to increase the potential for landslides, lateral spreading, subsidence, liquefaction, or collapse. As discussed above under Response to Checklist Questions 3.7a.iii and 3.7a.iv, the project site is not located within a liquefaction hazard zone or an earthquake-induced landslide area, respectively.[13] The proposed project would not create liquefaction or landslide hazards because the proposed project would not involve activities that would affect seismic conditions or alter underlying soil or groundwater characteristics that govern liquefaction potential. Additionally, the project site and the surrounding area are relatively flat and, thus, are not susceptible to landslides.

Subsidence and ground collapse generally occur in areas with active groundwater withdrawal or petroleum production. The extraction of groundwater or petroleum from sedimentary source rocks can cause the permanent collapse of the pore space previously occupied by the removed fluid. The compaction of subsurface sediments by fluid withdrawal will cause subsidence or ground collapse overlying a pumped reservoir. The project site and its vicinity do not contain any subsurface oil extraction facilities or groundwater withdrawal activities. The project site is located in an area with predominately single-family residential uses. The proposed project would result in the addition of four single-family residential uses on the project site, in addition to the two single-family residential homes that currently exist on the project site. The proposed project and future uses associated with the proposed project would not introduce any subsurface oil extraction facilities, mining activities, or extraction of mineral resources. Thus, the proposed project would not cause or exacerbate existing conditions associated with subsidence and collapse. Furthermore, the proposed project would be constructed in accordance with the California Building Code, which is designed to assure safe construction and includes building foundation requirements appropriate to site conditions. Therefore, no impact would occur.

d) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would be built on expansive soils without proper site preparation or adequate foundations for proposed buildings, thus posing a hazard to life and property. Expansive soils have relatively high clay mineral content and are usually found in areas where underlying formations contain an abundance of clay minerals. Due to high clay content, expansive soils expand with the addition of water and shrink when dried, which can cause damage

[12] *Ibid.*

[13] California Department of Conservation, *Earthquake Zone of Required Investigation: Baldwin Park Quadrangle*, March 25, 1999.

to overlying structures. Due to high clay content, expansive soils expand with the addition of water and shrink when dried, which can cause damage to overlying structures.

According to the Seismic Hazard Zone Report for the Baldwin Park Quadrangle, the project site is located in an area that is covered by younger alluvial basin deposits consisting of sand, silt, and clay.[14] Due to the potential for the soil underlying the project site to contain clay, soils on the project site may have the potential to shrink and swell, resulting from changes in the moisture content. Construction on the project site would be required to comply with all applicable building codes and standards, including the California Building Code, which is designed to assure safe construction and includes building foundation requirements appropriate to site conditions. Adherence with existing regulations would ensure that any areas containing expansive soils would be properly designed and engineered. Therefore, a less-than-significant impact would occur.

e) **No Impact**. A significant impact would occur if adequate wastewater disposal were not available to the project site. The project site is fully developed and located in an urbanized area of the City, where wastewater infrastructure is currently in place. The proposed project would connect to the existing sanitary sewer system and would not include septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

f) **No Impact**. A significant impact would occur if excavation or construction activities associated with the proposed project would disturb a unique paleontological resource, paleontological site, or a unique geologic feature. Paleontological resources are fossils (e.g., preserved bones, shells, exoskeletons, and other remains) and other traces of former living things. Paleontological resources may be present in fossil-bearing soils and rock formations below the ground surface. Ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Future development that would occur on the project site would be limited to single-family related structures, and excavation activities would be limited to a few feet below existing surface. The proposed project does not involve deep levels of excavation and, thus, is not expected to disturb native soil. Any project-related excavation is not expected to disturb any undiscovered paleontological resources. Therefore, no impact would occur.

[14]California Department of Conservation, *Seismic Hazard Zone Report for the Baldwin Park 7.5-Minute Quadrangle, Los Angeles County, California*, 1998.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.8 GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. GHG emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60°F. Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler.[15] In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels, such as coal, diesel, and biomass), and water vapor.

CO_2 is the most abundant GHG that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO_2, denoted as CO_2e. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

CEQA Guidelines Section 15064.4 provides guidance on how to determine the significance of impacts from GHGs. It does not establish a threshold of significance but CEQA Guidelines Section 15064.7 encourages lead agencies to establish significance thresholds for their respective jurisdictions. When adopting or using thresholds of significance, the lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as the thresholds chosen are supported by substantial evidence.

Neither the City nor SCAQMD has adopted specific GHG significance thresholds for land use development projects. However, SCAQMD published the Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold in October 2008.[16] SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April of 2008 to examine alternatives for establishing quantitative GHG thresholds within the district's jurisdiction. The Working Group proposed a tiered

[15]California Environmental Protection Agency Climate Action Team, *Climate Action Report to Governor Schwarzenegger and the California Legislator*, March 2006.
[16]South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

screening methodology for assessing the potential significance of GHG emissions generated by CEQA projects. The tiered screening methodology was outlined in the minutes of the final Working Group meeting on September 28, 2010.[17] Tier I consisted of determining whether the project qualified for an applicable categorical exemption under CEQA. A vast majority of projects do not qualify for such an exemption. Tier II screening would be based upon examining the project's consistency with a GHG reduction plan, typically included in a local general plan. Under the Tier III methodology, the Working Group proposed a 10,000 metric tons of carbon dioxide equivalents ($MTCO_2e$) per year threshold for industrial projects and a 3,000 $MTCO_2e$ annual threshold for commercial and residential projects. The proposed Tier IV screening was based on performance standards, which were outlined in several different options for demonstrating project consistency. The final proposed methodology, Tier V, relates to mitigation and CEQA offsets outlined in the CEQA Guidelines. For the purposes of this GHG assessment, the interim Tier III screening threshold value of 3,000 $MTCO_2e$ per year is the most appropriate comparison value for impacts determination based on the residential elements comprising the proposed project.

GHG emissions that would be generated by the proposed project were estimated using CalEEMod. Sources of GHG emissions during construction include heavy-duty off-road diesel equipment and vehicular travel to and from the project site. Sources of operational GHG emissions include energy use, water use, and waste generation. In accordance with SCAQMD methodology, the total amount of GHG emissions that would be generated by construction of the proposed project was amortized over a 30-year operational period to represent long-term impacts.

Table 3-4 presents the estimated GHG emissions that would be released to the atmosphere on an annual basis by the proposed project. Construction activities on the project site would produce approximately 252.4 $MTCO_2e$, or 8.4 $MTCO_2e$ annually over a 30-year period. The total annual operating emissions would be approximately 292.3 $MTCO_2e$ per year after accounting for amortized construction emissions. This mass rate is substantially below the most applicable quantitative draft interim threshold of 3,000 $MTCO_2e$ per year recommended by SCAQMD to capture 90 percent of CEQA projects within its jurisdiction. Therefore, implementation of the proposed project will result in a less-than-significant impact related to GHG emissions.

[17]South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15*, September 28, 2010, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2, accessed October 2020.

TABLE 3-4: PROPOSED PROJECT ANNUAL GREENHOUSE GAS EMISSIONS	
Scenario and Emission Source	**Carbon Dioxide Equivalent (Metric Tons per Year)**
Construction Emissions Amortized (Direct) /a/	8.4
Area Source Emissions (Direct)	<0.0
Energy Source Emissions (Indirect)	42.7
Mobile Source Emissions (Direct)	165.6
Waste Disposal Emissions (Indirect)	17.5
Water Distribution Emissions (Indirect)	58.1
TOTAL	**292.3**
SCAQMD Draft Interim Significance Threshold	**3,000**
Exceed Threshold?	
/a/ Based on SCAQMD guidance, the emissions summary also includes construction emissions amortized over a 30-year span. **SOURCE**: TAHA, 2020.	

b) **Less-Than-Significant Impact**. Assembly Bill (AB) 32 requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions and directs CARB to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill sets a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. On December 11, 2008, CARB adopted the Scoping Plan, which sets forth the framework for facilitating the state's goal of reducing GHG emissions to 1990 levels by 2020. The First Update of the Scoping Plan was adopted on May 22, 2014. CARB adopted the 2017 Scoping Plan in November 2017, which details strategies to cut back 40 percent of GHGs by 2030. AB 32, the First Update of the Scoping Plan, and the 2017 Scoping Plan did not establish regulations implementing, for specific projects, the Legislature's statewide goals for reducing GHG emissions.

The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions, including expanding energy efficiency programs, increasing electricity production from renewable resources (at least 33 percent of the statewide electricity mix), and increasing automobile efficiency, implementing the Low-Carbon Fuel Standard, and developing a cap-and-trade program. These measures are designed to be implemented by state agencies. The proposed project would not interfere with implementation of AB 32 and measures contained within the Scoping Plan to reduce GHG emissions.

The California legislature enacted Senate Bill (SB) 375 in 2008 to set regional targets for the reduction of GHG emissions and to require the preparation of Sustainable Communities Strategies (SCS) by metropolitan planning organizations. SB 743 was enacted in 2013 to evolve the assessment of transportation impacts under CEQA, and SB 743 was incorporated into the CEQA Guidelines in 2018 by promulgating the use of vehicle miles traveled (VMT) and VMT reductions as a significance threshold metric. The proposed project would introduce approximately 57 daily vehicle trips. The types of vehicle trips associated with the proposed project would be similar to other single-family residences in the surrounding area, such as vehicle trips associated with traveling to and from employment, shopping, and the nearest educational facility. The proposed project would not have the potential to conflict with the regional GHG emissions targets and VMT reduction efforts of SB 375 and SB 743, respectively.

The California legislature passed SB 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the metropolitan planning

organizations to prepare an SCS in their regional transportation plans to achieve the per capita GHG reduction targets. For the SCAG region, the SCS is contained in the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies (Connect SoCal). The proposed project would not conflict with the applicable goals of Connect SoCal. The proposed project would be located in an existing single-family residential neighborhood and on a property that currently consists of two single-family residences. It would not disturb any natural and agricultural lands. The Foothill Transit 178 bus line station at Valinda Avenue and Francisquito Avenue is approximately 0.4 miles east of the project site, and the Foothill Transit 185 and 448 bus line stations at Glendora Avenue and Francisquito Avenue are approximately 0.6 mile west of the project site. These bus routes would connect the project site to the regional transit system.

With regards to local climate planning initiatives, the proposed project would be consistent with the Energy Action Plan by complying with the California Building Code (Title 24), including CalGreen. As discussed in Response to Checklist Question 3.6a-b, CalGreen lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, to divert 50 percent of construction waste from landfills to recycling, and to use low-pollutant paints, carpets, and floors.

The City's General Plan that included a series of polices for implementing a well-planned community. Applicable policies aimed at reducing GHG emissions include the following:

- Policy P1.3: Minimize the adverse impacts of growth and development on air quality and climate.
- Policy P3.6: Reduce West Covina's production of greenhouse gas emissions and contribution to climate change and adapt to the effects of climate change.[18]

The proposed project would be consistent with Policies P1.3 and P3.6 of the City's General Plan since the proposed project would comply with all applicable regulations associated with reducing GHG emissions, such as CalGreen.

The proposed project would not conflict with applicable plans, policies, or regulations associated with reducing GHG emissions. Therefore, less-than-significant impacts are expected.

[18]City of West Covina, *West Covina General Plan*, adopted December 2016.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.9 HAZARDS AND HAZARDOUS MATERIALS. Would the Project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☑
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☑

a-b) Less-Than-Significant Impact. A significant impact would occur if the proposed project would create a significant hazard to the public or the environment through the routine transport, use, disposal, or release of hazardous materials. Construction of the proposed project would involve the limited use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. Similarly, operations of the proposed project would involve the limited use and storage of common hazardous substances, such as cleaning supplies, pesticides, and other landscaping supplies. The use of common hazardous substances would be similar to those that are typically used for residential uses. The proposed project does not involve any industrial uses or activities that would result in the use or discharge of unregulated hazardous materials and/or substances, or create a public hazard through transport, use, or disposal. The proposed project would comply with all applicable standards and regulations and adhere to manufacturer's instructions related to the transport, use, or disposal of hazardous materials during construction and operation. Therefore, impacts related to the creation of hazards to the public or the environment through the routine transport, use, disposal, or release of hazardous materials would be less than significant.

c) **No Impact**. A significant impact would occur if the proposed project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No schools are located within one quarter-mile of the project site. As discussed in the Response to Checklist Question 3.9a-b, the proposed project would involve limited use of hazardous materials. Any hazardous materials used by the proposed project would be handled in accordance with applicable state laws and regulations. Therefore, no impact would occur.

d) **No Impact**. A significant impact would occur if the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would create a significant hazard to the public or the environment. The California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) each maintain a database (EnviroStor and GeoTracker, respectively) that provides access to detailed information on hazardous waste sites and their cleanup statuses. EnviroStor focuses on hazardous waste facilities and sites with known contamination or sites with possible reason for further investigation. GeoTracker focuses on sites that impact or have the potential to impact water quality in California, with an emphasis on groundwater. A search of the EnviroStor and Geotracker databases determined that the project site is not included on any list compiled pursuant to Section 65962.5 of the Government Code.[19,20] Therefore, no impact would occur.

e) **No Impact**. A significant impact would occur if the proposed project would expose persons residing or working in the project site vicinity to risks associated with a safety hazard or excessive noise due to the project site's proximity to a public airport or public use airport. The project site is not located in an airport land use plan area, or within two miles of any public or public use airports, or private air strips. The closest airport to the project site is the San Gabriel Airport, which is approximately 6.2 miles northwest of the project site. Therefore, the proposed project would not result in an airport- or airstrip-related safety hazard for people residing or working in the area, and no impact would occur.

f) **No Impact**. A significant impact would occur if the proposed project would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Natural Hazard Mitigation Plan (NHMP) is the City's adopted emergency response plan. It provides a list of activities that may assist the City in reducing risk and preventing loss from natural hazard events. The plan addresses multi-hazard issues, as well as activities from earthquakes, earth movements, flooding, wildfires, and windstorms. The proposed project would not involve any uses that would interfere with the NHMP.

The project site is not located along an emergency route. The nearest emergency/disaster route near the project site is Hacienda Boulevard, approximately 0.5 mile to the west, Cameron Avenue, approximately 0.7 miles to the north, and Azusa Avenue, approximately 1.3 miles to the east.[21] All construction activities would occur on the project site, and construction and operational activities would not require temporary or permanent closure of any streets, including designated emergency/disaster routes near the project site. Additionally, the proposed project would be reviewed by the City's Fire Department to ensure that the proposed project would not interfere with the City's NHMP or evacuation routes. Therefore, the proposed project would not impair the implementation of or physically

[19]Department of Toxic Substances Control, *EnviroStor*, https://www.envirostor.dtsc.ca.gov/public/, accessed October 2020.
[20]Department of Toxic Substances Control, *GeoTracker*, https://geotracker.waterboards.ca.gov/, accessed October 2020.
[21]County of Los Angeles Department of Public Works, *Disaster Routes*, http://dpw.lacounty.gov/dsg/disasterroutes/map/West%20Covina.pdf, accessed October 2020.

interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

g) **No Impact**. A significant impact would occur if the proposed project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. The project site is located in an urbanized area of the City and is surrounded primarily by residential uses. The project site is not located within or adjacent to a wildland area. Additionally, the project site is not located in a fire hazard severity zone, as identified by the California Department of Forestry and Fire Protection (CalFire). The nearest fire hazard zone is located approximately 1.2 miles east of the project site.[22] The proposed project would not involve activities that would expose people or structures to the risk of loss, injury, or death involving wildland fires. Therefore, no impact would occur.

[22]California Department of Forestry and Fire Protection, *California Fire Hazard Severity Zone Viewer*, https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414, accessed October 2020.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.10 HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☑	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☑	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☑	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☑	☐
iv) impede or redirect flood flows?	☐	☐	☑	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☑	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Construction would involve demolition, grading, and building construction activities. During construction, surface water quality could potentially be affected by runoff of loose soils and debris, as well as a variety of construction wastes and fuels that could be carried off-site by surface runoff in into local storm drains that drain into water resources. However, the proposed project would be required to comply with all federal, state, and local regulations related to water quality standards and wastewater discharge. Construction contractors would be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit, as well applicable regulations in Chapter 9 of the WCMC, including Article I (Drainage and Grading) and Article II (Stormwater and Urban Run-Off Pollution Control). Compliance with the NPDES General Construction Activity Permit and applicable regulations in the WCMC would reduce the risk of water degradation from soil erosion and other pollutants related to construction activities, and potential violations of water quality standards would be minimized.

Operational activities would not increase impervious surfaces since new development on the project site would consist of single-family residential structures, pavement, and ornamental landscaping similar to those that currently exist on the project site. The type and level of run-off from the project site would be similar to existing conditions. Single-family residential uses on the project site would not generate hazardous wastewater that would require any special waste discharge permits, and all wastewater produced within the project site would be discharged into a sewer line. As such, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. Therefore, impacts related to water quality standards and waste discharge requirements would be less than significant.

b) **No Impact**. A significant impact would occur if the proposed project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed project may impede sustainable groundwater management of the basin. The project site is not currently used for groundwater recharge activities. Furthermore, the proposed project would not install any groundwater wells and would not otherwise directly withdraw any groundwater during construction or operations of the proposed project. Therefore, no impact would occur.

c.i) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would substantially alter the existing drainage pattern of the project site, including through the alteration of the course of an existing stream or river or through the addition of impervious surfaces, in a manner that would result in a substantial erosion or siltation on or off-site. The project site is located in a highly developed area of the City, and no streams or rivers are located in the vicinity of the project site. The proposed project would not alter existing drainage patterns in a manner that would result in erosion or flooding or increase stormwater runoff that would likely exceed existing storm drain capacity or increase pollutants in stormwater runoff. During construction, on-site soils would temporarily be exposed to surface water runoff; however, the proposed project would be required to comply with local, state, and federal regulations and standards related to minimizing potential erosion, including Chapter 9 of the WCMC regarding drainage and grading. The City requires that the project applicant prepare an erosion control plan and that the construction contractor implement erosion control measures during ground disturbing activities. Therefore, the proposed project would not substantially alter the existing drainage pattern of the project site in a manner that would result in substantial erosion or siltation, and less-than-significant impacts would occur.

c.ii) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would substantially alter the existing drainage pattern of the project site, including through the alteration of the course of an existing stream or river or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff and would result in flooding on- or off-site. The proposed project does not involve any construction activities that would alter existing drainage patterns on the project site. Runoff from the site currently discharges to existing storm drains in the surrounding streets. Following construction of the proposed project, stormwater runoff from the project site would be directed into existing storm drains that currently receive surface water runoff under existing conditions. Stormwater runoff from the project site is not expected to increase substantially in comparison to the existing conditions since the amount of impervious surfaces and drainage patterns would remain similar to existing conditions. Therefore, the proposed project is not expected to result in impacts to the existing drainage pattern such that it would result in on- or off-site flooding and a less-than-significant impact would occur.

c.iii) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would increase the rate or amount of surface runoff in a manner which would exceed the

capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. As discussed above, the proposed project would be required to comply with all federal, state, and local regulations related to water quality standards and wastewater discharge, including Chapter 9 of the WCMC regarding drainage and grading. Construction contractors would be required to obtain coverage under the NPDES General Construction Activity Permit. Compliance with these regulations and policies would ensure that during construction, impacts related to the capacity of the City's existing storm drain system, the generation of polluted runoff, impede or redirection of runoff would be less than significant. Furthermore, operations of the proposed project would not require the alteration of the existing drainage system or installation of a new drainage system. No substantial changes in the existing drainage pattern would occur. Therefore, less-than-significant impacts would occur.

c.iv) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would substantially alter the drainage pattern in a manner that would impede or redirect flood flows. The project site is designated as Zone X (shaded) by the Federal Emergency Management Agency (FEMA), which is an area subject to flooding from the 500-year flood (0.2 percent annual chance of flooding).[23] With implementation of the proposed project, drainage patterns, the amount of runoff, and the amount of impervious surfaces would remain similar to existing conditions. The proposed project would not alter the project site's drainage patterns in a manner that would impede or redirect flood flows. Therefore, a less-than-significant impact would occur.

d) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project is in a flood hazard, tsunami, or seiche zone and would risk the release of pollutants due to project inundation. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, or lake. A tsunami is a sea wave produced by a significant undersea disturbance. The project site is not located near a body of water that is large enough to create a seiche during a seismic event. The project site is located approximately 25 miles northeast of the Pacific Ocean and is not within a coastal zone or tsunami inundation area.

As discussed in Response to Checklist Question 3.10c.iv, the project site is subject to flooding from the 500-year flood (0.2 percent annual chance of flooding). With implementation of the proposed project, drainage patterns, the amount of runoff, and the amount of impervious surfaces would remain similar to existing conditions. While there is little that can be done if the project site is flooded, the risk of releasing pollutants during flooding would be consistent with the existing risks for the project site and its surrounding area. The proposed project does not involve uses or activities that would exacerbate this risk. Therefore, less-than-significant impacts would occur.

[23]Federal Emergency Management Agency, *FEMA Flood Map Servie Center*, https://msc.fema.gov/portal/search?AddressQuery=4215%20Admiralty%20Way%2C%20Marina%20Del%20Ray%2C%20CA%20#searchresultsanchor, accessed October 2020.

e) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The project site is located in the San Gabriel River watershed, which is regulated by the Los Angeles Regional Water Quality Control Board (LARWQCB). Water quality standards for the Los Angeles region, including the San Gabriel River watershed, are set forth in the *Water Quality Control Plan: Los Angeles Region Basin Plan* (Basin Plan), which was last updated in 2014. The Basin Plan establishes water quality objectives to protect the valuable uses of surface waters and groundwater within the Los Angeles region. Under Section 303(d) of the Clean Water Act, the Basin Plan is intended to protect surface waters and groundwater from both point and nonpoint sources of pollution within the project area and identifies water quality standards and objectives that protect the beneficial uses of various waters. In order to meet the water quality objectives established in the Basin Plan, LARWQCB established total maximum daily loads, which are implemented through stormwater permits. As discussed in Response to Checklist Question 3.10a, the proposed project would be required to comply with applicable regulations associated with water quality. Compliance with these regulations would ensure that the proposed project would be consistent with the Basin Plan.

The City is underlain by the San Gabriel Valley Groundwater Basin and approximately 80 percent of West Covina's potable water is from the local groundwater basin. The Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or alternatives GSPs. GSPs are detailed road maps for how groundwater basins will reach long term sustainability. The project site is located in a very low-priority basin and, to date, no sustainable groundwater management plan has been developed for this groundwater basin.[24]

The proposed project would not conflict with or obstruct implementation of the Basin Plan. Therefore, impacts related to water quality control plans or sustainable groundwater management plans would be less than significant.

[24]California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp-dashboard/final/, accessed October 2020.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.11 LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

a) **No Impact**. A significant impact would occur if the proposed project would physically divide an established community. The project site is surrounded primarily by single-family residential uses and served by existing roadways. The proposed project would be consistent and compatible with the surrounding land uses. The proposed project does not include any features that would physically divide the community. No street closures would result with implementation of the proposed project. Implementation of the proposed project would not block access to or through the community. Pedestrian access would be maintained on the sidewalks along the public roads surrounding the project site. Access to all uses would not be disrupted. Therefore, no impact would occur.

b) **No Impact**. A significant impact would occur if the proposed project conflicts with applicable land use plans, policies, or regulations in a manner that would result in a significant environmental impact. The project site is zoned Single-Family Residential (R-1, Area District II) and has a General Plan designation of Neighborhood – Low Density Residential (NL). The proposed project does not involve any General Plan amendment or changes that would conflict with the City's General Plan and policies and applicable regulations in the WCMC. Future development on the project site would consist of single-family residential uses that are consistent with the General Plan NL designation and would be required to comply with all applicable Zoning Code regulations associated with the R-1, Area District II zone. Therefore, the proposed project would not conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, and no impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.12 MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

a-b) **No Impact**. A significant impact would occur if the proposed project would result in the loss of availability of known mineral resources of regional value and residents of the state, or result in the loss of a locally important mineral resource recovery site. The project site and its surrounding area are currently developed with single-family residential uses. The project site is not located within a mineral producing area as classified by the California Geological Survey (CGS) and is not identified by the City of West Covina as containing significant mineral deposits site that would be of value to the region and the residents of the state. Furthermore, the project site is not located near any oil fields, and no oil extraction and/or quarry activities have historically occurred on or are presently conducted at the project site. Therefore, the proposed project would not result in the loss of availability of any known regionally valuable or locally important mineral resource, and no impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.13 NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☑	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

a) **Less-Than-Significant Impact with Mitigation Incorporated**. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The A-weighted scale, abbreviated dBA, reflects the normal hearing sensitivity range of the human ear.

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA and a 10-dBA increase is subjectively heard as a doubling in loudness. Noise levels decrease as the distance from the noise source to the receiver increases. Noise levels generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., pavement) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet over hard surface from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise levels generated by a mobile source will decrease by approximately 3 dBA over hard surfaces for each doubling of the distance.

This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}). CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound

levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL is always a higher number than the actual 24-hour average. L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the average energy noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Summary of Applicable Noise Regulations/Standards

The City has established noise standards to control unnecessary, excessive and annoying noise. The standards are codified in Chapter 15, Article IV (Noise Regulations) of the WCMC. Noise created by radios, television sets, and similar devices is regulated by WCMC Section 15-94 (Radios, television sets, and similar devices). The WCMC states that between the hours of 10:00 p.m. on one day and 7:00 a.m. of the following day, it is unlawful to use or operate any radio receiving set, musical instrument, phonograph, television set, or other machine or device for the producing or reproducing of sound or any device by which voice, music, or any other sound is amplified, in such a manner as to create any noise which causes the noise level at the property line of any property (or if a condominium or apartment house, within any adjoining unit or apartment), building, structure or vehicle to be plainly audible at a distance of 50 feet.

Construction noise is governed by WCMC Section 15-95 (Construction and Building Projects), which prohibits the use of construction tools, equipment, or the performance of any outside construction on buildings, structures, or projects within 500 feet of a residential zone which would cause the ambient noise level to be exceeded by 5 dB as measured at property lines, except for the hours of 7:00 a.m. to 8:00 p.m. Unloading and loading activity is prohibited within 500 feet of a residential zone, except for the hours of 6:00 a.m. to 8:00 p.m.

The City's General Plan Noise Element provides guidance on improving the safety and health of the community and abatement of excessive noise. The General Plan outlines land use compatibility standards as a guideline for locating new land uses, which have been adopted from the California Office of Noise Control. Policy 6.24 of the General Plan requires that new developments analyze potential noise impacts on nearby noise sensitive receptors and as feasible require noise mitigation to address any identified significant impacts.

Existing Noise Levels

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas are considered noise- and vibration-sensitive receptors and may warrant unique measures for protection from intruding noise. Sensitive receptors within 500 feet of the project site include:

- Residences to the north, east, south, and west of the project site;
- Saint Stephen Baptist Church located approximately 230 feet to the southwest;
- Saint Stephen Academy located approximately 260 feet to the southwest.

To characterize the existing noise environment around the project site, short-term noise measurements were taken using a SoundPro DL Sound Level Meter on Wednesday, January 6, 2021 between 10:00 a.m. and 12:30 p.m. Hourly noise levels at sensitive receptors near the project site ranged from 46.7 dBA L_{eq} to 64.6 dBA L_{eq}. Roadway noise was the most significant source of noise in the area surrounding the project site, with occasional small-aircraft flyovers. Monitoring locations and existing noise levels are shown in **Table 3-5**.

TABLE 3-5: EXISTING AMBIENT NOISE LEVELS

Noise Monitoring Location	Sound Level (dBA, L_{eq})
Saint Stephen Baptist Church/Academy (1720 Walnut Ave.)	60.2
Residence (740 Florence Ave.)	52.4
Residence (16053 Francisquito Ave.)	64.6
Residence (1422 Farndale Ave.)	51.7
Residence (646 Alwood St.)	48.8
Residence (1417 Pricedale Ave.)	46.7
SOURCE: TAHA, 2021.	

Construction

Construction activity would result in temporary increases in ambient noise levels in the area surrounding the project site on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Typical noise levels from various types of equipment that may be used during each construction phase are listed in **Table 3-6**.

Construction activities typically require the use of numerous pieces of noise-generating equipment. Minimal materials import and export is anticipated. The noise levels shown in **Table 3-7** take into account the likelihood that multiple pieces of construction equipment would be operating simultaneously and the typical overall noise levels that would be expected for each phase of construction. When considered as an entire process with multiple pieces of equipment, demolition would generate the loudest noise level of approximately 84.2 dBA L_{eq} at 50 feet.

Table 3-8 presents the estimated noise levels at the sensitive receptors at various distances within 500 feet from the project site for informational purposes. The most noise-intensive construction activities would occur during the early phases of construction (e.g., demolition and site preparation). The majority of the latter phases of construction would occur within the newly constructed building, and result in lower noise levels than exterior construction.

TABLE 3-6: CONSTRUCTION EQUIPMENT NOISE LEVEL RANGES	
Construction Equipment	**Noise Level at 50 feet (dBA, L_{eq})**
DEMOLITION PHASE	
Backhoe	73.6
Concrete Saw	82.6
Dozer	77.7
SITE PREPARATION	
Backhoe	73.6
Dozer	77.7
Grader	81.0
GRADING	
Backhoe	73.6
Dozer	77.7
Grader	81.0
BUILDING CONSTRUCTION PHASE	
Backhoe	72.6
Crane	70.0
Generator	77.6
Gradall	79.4
Welder	73.6
PAVING	
Backhoe	73.6
Concrete Mixer	74.8
Paver	74.2
Roller	73.0
ARCHITECTURAL COATING	
Air Compressor	73.7
SOURCE: FHWA, *Roadway Construction Noise Model, Version 1.1*, 2008.	

TABLE 3-7: CONSTRUCTION PHASE NOISE LEVELS	
Construction Phase	**Noise Level At 50 Feet (dBA)**
Demolition	84.2
Site Preparation	83.2
Grading	83.2
Building Construction	82.9
Paving	80.0
Architectural	73.7
SOURCE: FHWA, *Roadway Construction Noise Model, Version 1.1,* 2008.	

TABLE 3-8: UNMITIGATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS

Sensitive Receptors	Distance to Construction (Feet)	Existing Ambient Noise Level (dBA, L_{eq})	Max Construction Noise Level (dBA, L_{eq})	Typical Construction Noise Level at Sensitive Receptor (dBA, L_{eq})
Residences to the south (adjacent to project site)	15	51.7	94.7	94.7
Residences to the west and east (across the street from project site)	50	51.7	84.2	84.2
Residences to the north (across the street from project site)	80	64.6	80.1	80.2
Residences to the east	170	51.7	69.1	69.1
Saint Stephen Baptist Church to the southwest	200	60.2	67.7	68.4
Saint Stephen Academy to the southwest	230	60.2	66.4	67.4
Residences to the south	260	48.8	65.4	65.5
Residences to the south	320	48.8	63.6	63.7
Residences to the east	330	46.7	61.8	61.9
Residences to the north	350	52.4	62.8	63.2
Residences to the south	420	52.4	59.7	60.5

SOURCE: TAHA, 2021.

The proposed project would be constructed in a manner typical of urban infill projects and would not require unusually noisy activities such as pile driving. In addition, the proposed project would not require nighttime construction activities. Construction would comply with the allowable construction hours of 7:00 a.m. to 8:00 p.m., which is designed to control noise exposure. However, on-site construction activities may result in noise levels that would be disruptive to nearby residences. In order to reduce disruptive construction noise levels, the proposed project would be required to implement Mitigation Measures **N-1** through **N-3**. Mitigation Measure **N-1** would require construction equipment to be equipped with mufflers to reduce engine noise. This mitigation measure would result in a noise reduction of approximately 3 dB. Mitigation Measure **N-2** would require the installation of a temporary noise barrier along the project site perimeter that would reduce noise levels by at least 10 dBA. Although difficult to quantify, Mitigation Measure **N-3** would also help control noise levels by establishing a noise disturbance coordinator. As shown in **Table 3-9**, implementation of Mitigation Measures **N-1** through **N-3** would reduce construction noise levels at nearby sensitive receptors. Therefore, noise impacts from on-site construction activities would be less than significant with mitigation incorporated.

TABLE 3-9: MITIGATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS

Sensitive Receptors	Distance to Construction (Feet)	Existing Ambient Noise Level (dBA, L_{eq})	Mitigation /a/	Max Construction Noise Level (dBA, L_{eq})	Typical Construction Noise Level at Sensitive Receptor (dBA, L_{eq})
Residences to the south (adjacent to project site)	15	51.7	13	81.7	81.7
Residences to the west and east (across the street from project site)	50	51.7	13	71.2	71.2
Residences to the north (across the street from project site)	80	64.6	13	67.1	69.0
Residences to the east	170	51.7	13	56.1	57.4
Saint Stephen Baptist Church to the southwest	200	60.2	13	54.7	61.3
Saint Stephen Academy to the southwest	230	60.2	13	53.4	61.0
Residences to the south	260	48.8	13	52.4	54.0
Residences to the south	320	48.8	13	50.6	52.8
Residences to the east	330	46.7	13	48.8	50.9
Residences to the north	350	52.4	13	49.8	54.3
Residences to the south	420	52.4	13	46.7	53.4

/a/ Includes a 3 dB reduction for construction equipment mufflers and a 10 dB reduction for a temporary noise barrier.
SOURCE: TAHA, 2021.

Operation

Stationary Sources. The proposed project would not include significant stationary sources of noise. Residential heating, ventilation, and air conditioning (HVAC) systems would likely be installed for each residence. Neither the WCMC nor the City's General Plan Noise Element has established quantitative noise thresholds regarding HVAC equipment. Per WCMC Section 26-568, mechanical equipment, including HVAC systems, are required to be placed behind a parapet wall when located on a rooftop and fully enclosed when located at ground level. Residential HVAC equipment would likely be placed at the ground level and would be consistent with the types of HVAC equipment that are typically found in the single-family residential neighborhood in which the project site is located. Views of the HVAC equipment would be obstructed by the residential structures on the project site and/or walls along the property lines of the project site. The HVAC equipment would not represent an unusual noise source within the residential neighborhood and would not result in an increase in noise levels. Therefore, the proposed project would not result in a significant impact related to HVAC equipment.

Mobile Sources. According to Caltrans, a doubling of traffic volumes would be necessary to result in an audible increase in noise. As discussed in the traffic analysis for the proposed project, which is included in Appendix C, and in Response to Checklist Question 3.17b, the proposed project would generate approximately four vehicle trips during the AM peak hour and six vehicle trips during the PM peak hours. Traffic volumes generated by the proposed project would not double along any roadway. Therefore, the proposed project would not result in a significant impact related to mobile noise levels.

b) No Impact.

Construction

Construction activity can generate varying degrees of vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, and to damage at the highest levels.

Because construction activity is short-term and equipment moves around a project site, the primary concern regarding construction vibration relates to building damage. Activities that can result in damage include demolition and site preparation in close proximity to sensitive structures. Typical vibration levels associated with relevant construction equipment are provided in **Table 3-10**. Importantly, construction would not require pile driving.

TABLE 3-10: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	Peak Particle Velocity at 25 feet (Inches/Second)
Loaded Trucks	0.076
Small Bulldozer	0.003

SOURCE: FTA, *Transit Noise and Vibration Impact Assessment*, September 2018.

The City has not established vibration standards for construction activities. The Federal Transit Administration (FTA) has published guidance stating that non-engineered masonry buildings (e.g., typical single-family residential buildings) can withstand peak particle velocity (PPV) vibration of levels of at least 0.2 inches per second without experiencing damage. Equipment that would be utilized would be most similar to a small bulldozer, which generates a vibration level of approximately 0.003 inches per second at 25 feet. Equipment operating within 7 feet of a structure would generate vibration levels that exceed 0.2 inches per second PPV. Heavy-duty equipment would typically operate at least 15 feet away from the property line of the adjacent uses and are not anticipated to result in damage to nearby structures. Vibration is a localized event and attenuates rapidly with distance and at this distance vibration damage would not occur. The City regulates construction disturbances through limiting the allowable hours of activities to between 7:00 a.m. to 8:00 p.m. Residential construction is typically over by 4:00 p.m. even though later construction is allowed. Complying with the City standards is considered sufficient for limiting exposure to vibration levels. Therefore, no impact would occur.

Operation

The proposed project would not include significant sources of vibration. Vehicle trips associated with the proposed project would not generate perceptible vibration levels as rubber-tired vehicles rarely create ground-borne vibration problems unless there is a discontinuity or bump in the road that causes the vibration.[25] Therefore, no impact would occur.

[25]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, September 2018.

c) **No Impact**. The proposed project is not located within an airport land use plan and is not located within two miles of a private airstrip or public airport. There is no potential to expose people working or residing in the area to excessive aircraft noise. Therefore, no impact would occur.

MITGATION MEASURES

N-1 Power construction equipment (including combustion engines), fixed or mobile, shall be equipped with muffling devices consistent with manufacturers' standards. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

N-2 A temporary noise barrier shall be installed along the property line of the project site for the duration of construction activities. The temporary noise barrier shall be 8 feet in height and capable of reducing noise levels by at least 10 dBA.

N-3 A "noise disturbance coordinator" shall be established prior to the commencement of construction activities. The disturbance coordinator shall be responsible for responding to local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.14 POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☑	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

a) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would induce substantial population growth that would not have otherwise occurred as rapidly or in as great a magnitude. The proposed project involves subdividing two existing single-family residential parcels into a total of six lots. Two single-family residences currently exist on the project site and four additional single-family homes would be built as a result of the proposed project. Based on the City's average household size of 3.43 persons per household, it is estimated that the proposed project would increase population by approximately 14 persons.[26] The West Covina General Plan estimates that population in the City would increase by approximately 7,161 residents between 2016 to 2035.[27] The population increase that would result from the proposed project represents less than one percent of the City's population in 2019 and the planned population growth from the City's General Plan. The proposed project would not add growth beyond what was anticipated from buildout of the General Plan. Additionally, no new expanded infrastructure would be required from the proposed project. Therefore, impacts would be less-than-significant.

b) **No Impact**. A significant impact would occur if the proposed project would displace substantial numbers of existing people or housing. The project site is currently developed with two single-family residences. The existing residential structures would be modified to meet the 5-foot front and rear yard and 25-foot side yard setback requirements of the City's Zoning Code. These existing residences would remain on the project site and would not be displaced. Four additional single-family residences would potentially be built on the project site. The proposed project would not displace existing housing or require the construction of replacement housing elsewhere. Therefore, no impact would occur.

[26]United States Census Bureau, *ACS Demographic and Housing Estimates*, https://data.census.gov/cedsci/table?q=west%20covina%20populaton&tid=ACSDP1Y2019.DP05&hidePreview=false, accessed October 2020.

[27]City of West Covina, *2016 General Plan Update and Downtown Plan and Code Final Environmental Impact Report SCH# 2016021069*, December 2016, available at https://www.westcovina.org/home/showdocument?id=18142, accessed October 2020.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.15 PUBLIC SERVICES. Would the Project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☑	☐
ii) Police protection?	☐	☐	☑	☐
iii) Schools?	☐	☐	☑	☐
iv) Parks?	☐	☐	☑	☐
v) Other public facilities?	☐	☐	☑	☐

a.i) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would result in the provision of or need for new or physically altered fire protection services, the construction and/or operation of which would cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives. The West Covina Fire Department (WCFD) provides fire protection and paramedic services to residents and businesses within the City. The City is divided into five fire districts, and each fire district is served by a fire station. The project site is within the fire district of Fire Station No. 1, located at 819 South Sunset Avenue. The project site is approximately 1.7 "road miles" from Fire Station No. 1, which would ensure a maximum response time of five minutes or less.

Construction of the proposed project may generate traffic associated with the movement of construction equipment, removal of demolition and excavation materials, and construction worker trips. Construction activities associated with the proposed project are not expected to directly block emergency routes since construction would occur entirely within the project site and no lane or street closures would occur. Although slow-moving construction-related vehicles may be present along streets, emergency vehicles would be able to circumvent these slow-moving construction-related vehicles using sirens during emergencies. Emergency access would remain available along all surrounding streets.

The proposed project would result in the creation of four additional single-family residential homes, which would generate a long-term demand for fire protection and emergency services provided by WCFD. The single-family residential homes are not anticipated to cause WCFD to construct a new fire station to maintain its level of service. The new and expanded residential structures that on the project site would be constructed in compliance with the requirements of the City's Fire Code (Chapter 10, Article II of the WCMC), which requires that adequate fire flow serves the project site, fire prevention and suppression measures, fire access, and number of hydrants. Furthermore, the applicant

would be required to submit project plans to WCFD and incorporate WCFD fire protection and suppression features that are appropriate for the proposed project. Compliance with the City's Fire Code and the inclusion of the WCFD fire prevention measures would ensure that operation of the proposed project would not cause WCFD to expand the existing Fire Station 1, or any other fire stations within the City.

Per Chapter 17, Article IV of the WCMC, new residential structures constructed as a result of the proposed project would be required to pay a development impact fees, which would be used to pay for the construction of any additional fire facilities, fire facility improvements, equipment, and vehicles.

As the proposed project would be required to comply with the City's Fire Code, WCFD requirements, and pay development impact fees, the proposed project would not increase demand on fire protection services in a manner that would adversely affect LACFD service ratios, response times, or other performance objectives. Therefore, impacts related to fire protection services would be less than significant.

a.ii) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would result in the provision of or need for new or physically altered police protection services, the construction and/or operation of which would cause significant environmental impacts in order to maintain service ratios, response times, or other performance objectives. The West Covina Police Department (WCPD) provides police protection services to residents and businesses within the City of West Covina. WCPD headquarters is located at 1444 West Garvey Avenue approximately 1.4 miles northwest of the project site.

The single-family residential homes that would be developed as a result of the proposed project would potentially increase the demand for police protection services provided by WCPD. However, given that implementation of the proposed project would result in four new residences and two expanded residences, the potential increase in police protection services is not anticipated to cause WCPD to construct a new police station or expand the existing WCPD police headquarters to maintain its level of service. Any potential increase in police protection services would be met by the deployment of additional officers at WCPD and/or increased patrols within the vicinity of the project site. In addition, the development single-family residential homes and their accessory structures on the project site would not result in any unique or more extensive crime problems that cannot be handled with the existing level of police resources. In addition, project plans for the new single-family residential homes would be submitted to the WCPD Crime Prevention unit for review. Furthermore, the proposed project would be required to pay development impact fees, which would be used to help pay for any additional law enforcement facilities, police facility improvements, vehicles, and equipment required as a result of the proposed project.

Project construction may generate traffic associated with the movement of construction equipment, removal of demolition materials, and construction worker trips. However, construction activities are temporary and would not involve any lane or street closures. Construction activities would occur entirely within the project site. As a result, the proposed project would not directly block emergency routes. Although slow-moving construction-related vehicles may be present along streets, police vehicles would be able to circumvent these slow-moving construction-related vehicles using police sirens during emergencies. Emergency access would remain available along all surrounding streets. Therefore, less-than-significant impacts related to police protection services would occur.

a.iii) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would induce substantial employment or population growth, which could increase demand for school facilities that would exceed the capacity of the school, necessitating a new school or physical alteration of an existing school, the construction of which would cause a significant environmental impact. The project site is located within the West Covina Unified School District (WCUSD). The proposed project would result in a net increase of four single-family residential units, which would generate approximately two new students to the WCUSD.[28] While the proposed project would generate a direct demand for school facilities, the increase in demand is expected to be minimum. Pursuant to Section 65995 of the Government Code, the applicant would be required to pay developer school impact fees to WCUSD. Pursuant to Section 65995(3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Therefore, impacts associated with school facilities would be less than significant.

a.iv) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would induce substantial population growth resulting in the need for and/or the provision of new or physically altered parks, the construction of which would cause significant environmental impacts. The City's Public Services Department is responsible for the provision, maintenance, and operation of public recreational and park facilities and services within the City. As discussed in Response to Checklist Question 3.14a, the proposed project would result in a net population increase of approximately 14 persons. The net population increase would generate direct demand on parks and recreational facilities. The proposed project would be required to pay development impact fees, which would contribute funding for parks and recreational facilities. Any additional park services required as a result of the proposed project would be mitigated by the Applicant paying the development impact fee. Therefore, impacts would be less than significant.

a.v) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would result in substantial employment or population growth that could generate a demand for other public facilities, including roads, transit, utilities, and libraries, that would exceed the capacity available to serve the project site, necessitating new or physically altered public facilities, the construction of which would cause significant environmental impacts. Other public services that could be affected by the proposed project include public libraries. The City is served by the West Covina Library located at 1601 West Covina Parkway approximately 1.5 miles northwest from the project site.

As discussed in Response to Checklist Question 3.14a, the proposed project would result in a net population increase of approximately 14 persons. The net population increase would result in a direct demand on library facilities. The West Covina Library is part of the County of Los Angeles Public Library system, which is financed by property taxes from the service area, general county funds, parcel tax, grants, feeds, and funds raised by the Library Foundation. As a result, the proposed project would contribute to the financing of library services through property taxes, which would mitigate the need for new or physically altered government facilities that support library use. Therefore, less-than-significant impacts related to library facilities would occur.

[28]Assuming a student generation rate of 0.5 students per single-family residential unit, as provided in the *City of West Covina Final Environmental Impact Report for the 2016 General Plan Update and Downtown Plan and Code*, December 2016.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.16 RECREATION. Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☑	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☑	☐

a-b) Less-Than-Significant Impact. A significant impact would occur if the proposed project results in an increased use of existing parkland and recreational facilities so as to accelerate or induce their physical deterioration. The proposed project does not include recreational facilities and does not necessitate the expansion of existing recreational facilities. As discussed in Response to Checklist Question 3.15a.iv, the population increase of 14 persons as a result of the proposed project would generate direct demand on parks and recreational facilities. The proposed project would be required to pay development impact fees, which would contribute funding for parks and recreational facilities. Any additional park services required as a result of the proposed project would be mitigated by the Applicant paying the development impact fee. Therefore, impacts on recreation would be less than significant.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.17 TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☑	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☑	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
d) Result in inadequate emergency access?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The proposed project would not change roadway designations from those in the Transportation Element of City's General Plan and would be consistent with adopted plans and policies related to the circulation system.

The project site is served by Foothill Transit Line 178. The nearest bus stop is located on Valinda Avenue at Francisquito Avenue, approximately 0.3 miles east of the project site. No designated bicycle lanes are located in the vicinity of the project site and the proposed project would not affect any bicycle lanes. Existing sidewalks are currently located along Francisquito Avenue and would remain with implementation of the proposed project. Foothill Transit Line 178 and existing sidewalks that currently serve the project site would continue to serve the project site. The proposed project does not include components that would alter or limit access to these transportation facilities, and the proposed project would not conflict with policies supporting alternative transportation modes.

The project site has three existing driveways that connect to Francisquito Avenue and would continue to operate in largely the same manner with implementation of the proposed project as it does under existing conditions. Although new driveway approaches may be constructed along Frandale Avenue and Craig Drive, the new driveway approaches would be designed and constructed in conformance with all applicable City requirements.

A traffic assessment was prepared for the proposed project by KOA in December 2020 and is included in Appendix C. The City's minimum threshold requirement to conduct a traffic impact analysis with level of service analysis and circulation review is 50 project trips during the AM or PM peak hours. Using the single-family home land use trip generation rate from the *ITE Trip Generation, 10th Edition*, the proposed project is estimated to generate 57 vehicle trips a day, including four vehicle trips in the AM peak hour and six vehicle trips in the PM peak hour The AM and PM peak hour trips are below the City's minimum threshold and, thus, the proposed project is not expected to result in traffic and circulation issues.

As the proposed project would not conflict with any program, plan, ordinance, or policy addressing the circulation system, impacts would be less than significant.

b) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project is inconsistent with CEQA Guidelines Section 15064.3(b). Senate Bill 743 (SB 743) was enacted in 2013 to further the assessment of transportation impacts under CEQA and in 2018, the CEQA Guidelines incorporated SB 743 by promulgating the use of vehicle miles traveled (VMT) as a criteria to determine transportation impacts. The City of West Covina Transportation Study Guidelines provides "screening criteria" for the VMT analysis, exempting projects that are anticipated to produce low VMT. One of these criteria precludes analysis for land uses that generate fewer than 110 trips per day. As the proposed project would only generate 57 daily vehicle trips, the Proposed Project would be below the City's "screening criteria." Therefore, the proposed project would not conflict with CEQA Guidelines Section 15064.3(b), and impacts would be less than significant.

c) **No Impact**. A significant impact would occur if the proposed project would introduce design features or incompatible uses that would increase hazards. The proposed project would not require the construction of any new roads or the modification of any existing roads or pedestrian pathways that would result in an increase in hazards due to a design feature. New driveway approach would likely be constructed so that each of the proposed lot would have a driveway. All access and circulation associated with the proposed project would be designed and constructed in conformance with all applicable City requirements. Additionally, the proposed project would not introduce incompatible uses that would increase hazards. Therefore, no impact related to hazards associated with design features or incompatible uses would occur.

d) **No Impact**. A significant impact would occur if the proposed project would result in inadequate emergency access. The proposed project would be designed to allow adequate emergency access to the project site in accordance with the City's driveway standards and WCFD requirements. The proposed project would not result in inadequate emergency access and, therefore, no impact is expected.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.18 TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☑
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☑

a-b) No Impact. A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources. The project site was previously disturbed and developed. To date, no significant tribal cultural resources have been identified on the project site. As discussed in Response to Checklist Question 3.5a, the project site is not listed or eligible for listing in the California Register of Historical Resources. Additionally, the project site is not identified as a historical or potentially historical resource in the City's 2006 Historic Context Report and the 2019 Historic Resource Inventory Update.

In compliance with Assembly Bill 52, the Native American tribe traditionally and culturally affiliated with the geographic area of the project site (Gabrielino Band of mission Indians – Kizh Nation) was notified of the proposed project on October 22, 2020. The City received a response from the tribe and scheduled a consultation with the tribe. However, the meeting was canceled by the tribe. The tribe stated that a consultation would not be necessary since the proposed project is a tentative tract map.

The project site is currently developed with two single-family residences, and there are no historic resources on, adjacent to, or in proximity to the project site listed in the California Register of Historical Resources pursuant to in Section 15064.5. Although no construction activities are currently proposed, implementation of the proposed project would result in the development of four additional single-family residences on the project site in the future. The proposed project would not include substantial excavation and, thus, is not expected to disturb native soil that may contain tribal cultural resources. Any project-related ground disturbing activities is not expected to disturb any undiscovered tribal cultural resources. As discussed in Response to Checklist Question 3.5.c, if human remains of Native American origin are discovered during construction, the proposed project would be required to comply with Public Resources Code Section 5097 related to the handling of Native American human remains. Therefore, no impact would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.19 UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☑	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☑	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☑	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would require or result in the relocation or construction of new utilities facilities or service systems, which would cause significant environmental effects.

Water Supply. Water for the project site is served by Suburban Water Systems. According to the 2015 Urban Water Management Plan for Suburban Water Systems, Suburban Water Systems supplies approximately 60,751 acre-feet per year (afy) of water during a normal year and 44,174 afy of water during a single dry year and multiple dry years. The Suburban Water Systems service area has a water demand of approximately 40,850 afy. Suburban Water Systems would have a water surplus of 19,901 afy during a normal year and 3,324 afy during a single dry year and multiple dry years and would have sufficient water supply to meet its service area demands for normal, single-dry, and multiple-dry year conditions through 2040.[29]

The proposed project would result in an increased water demand by approximately 2.1 afy, which represents less than 0.1 percent of the Suburban Water Systems' available water supply.[30] Sufficient water supplies would be available to serve the proposed project. The estimated water demand of the proposed project would be typical of single-family homes and is not expected to exceed available supplies or the available capacity within the distribution infrastructure that would serve the project site. New or expanded water facilities would not be required. Additionally, prior to the issuance of the building

[29]Suburban Water Systems, *Draft 2015 Urban Water Management Plan*, June 15, 2016.
[30]Based on the Los Angeles County Sanitation District wastewater generation rate of 260 gallons per day per for single-family residential home. Estimated water demand is assumed to be 120 percent of wastewater flows.

permit, the applicant would be required to verify that the City's water system can accommodate the proposed project's fire flows and all potable water demand. Therefore, impacts related to water supply infrastructure would be less than significant.

Wastewater. Wastewater generated from the project site would be treated at the San Jose Creek Water Reclamation Plant (WRP). San Jose Creek WRP treats approximately 65.7 million gallons per day (mgd) of wastewater and has the capacity to treat up to 100 mgd of wastewater. Based on the Los Angeles County Sanitation District (LACSD) wastewater generation rate of 260 gallons per day (gpd) for a single-family home, implementation of the proposed project would result in the generation of approximately 1,560 gpd of wastewater, which represents less than 0.1 percent of the San Jose Creek WRP remaining available treatment capacity.[31] San Jose Creek WRP would have adequate remaining available treatment capacity to accommodate the single-family residences on the project site. Thus, new or expanded wastewater treatment facilities would not be required, and impacts would be less than significant.

Stormwater Drainage. Existing stormwater runoff infrastructure on the project site conveys stormwater from the project site to City storm drains and channels via curb and gutters, where stormwater is then conveyed to the San Gabriel river and/or the Rio Hondo River. Implementation of the proposed project would not result in a substantial increase in impervious surfaces and is not expected to alter the drainage pattern of the project site. Accordingly, the proposed project would not cause a substantial increase in the peak flow rates or volumes that would exceed the drainage capacity of existing stormwater drainage facilities. As per WCMC Section 9-36, the proposed project would be required to implement low impact development (LID) best management practices to reduce the amount of impervious area of a completed project site and promote the use of infiltration and other controls that reduce runoff. Additionally, the proposed project would be subject to the latest requirements of the National Pollution Discharge Elimination System (NPDES), LARWQB, and applicable pollution control and stormwater drainage measures. Improvements to the existing storm drain system are not required to adequately accommodate storm water runoff from the project site. Consequently, the proposed project would not exacerbate any existing deficiencies in the storm drain system or provide substantial additional sources of polluted runoff. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, and impacts would be less than significant.

Electric Power and Natural Gas. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for interior and exterior building lighting, ventilation, electronic equipment, refrigeration, appliances, security systems, and more. The proposed project would be served by Southern California Edison for electricity, and SoCalGas for natural gas. The project site is in a developed, urbanized portion of the City of West Covina that is served by existing electrical power, natural gas, and telecommunications services. With implementation of the proposed project, new electricity and natural gas connections would be established for the new single-family residences on the project site. However, no substantial electrical or natural gas infrastructure is present on or adjacent to the project site that would need to be relocated to accommodate the proposed project. Therefore, impacts associated with electric power and natural gas facilities would be less than significant.

Telecommunications. Telecommunication services within the City include phone, television, and internet providers. The proposed project would potentially require

[31]Sanitation Districts of Los Angeles County, *Table 1, Loadings for Each Class of Land Use*, http://www.lacsd.org/civicax/filebank/blobdload.aspx?blobid=3531, accessed October 20, 2020.

additions of new on-site telecommunications infrastructure to serve the new residences and potential upgrades and/or relocation of existing telecommunications infrastructure. Installation of new telecommunications infrastructure would be limited to on-site telecommunications distribution and minor off-site work associated with connections to the public system. No upgrades to off-site telecommunications systems are anticipated to occur as a result of the proposed project. Any work that may affect services to the existing telecommunications lines would be coordinated with service providers and are not expected to cause significant environmental effects. Therefore, impacts would be less than significant.

b) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would increase water usage such that the project site would not have enough water supplies during normal, single dry and multiple dry years. As discussed in Response to Checklist Question 3.19a, the proposed project would result in an increased water demand by approximately 2.1 afy, which represents less than 0.1 percent of the Suburban Water Systems' available water supply.[32] Sufficient water supplies would be available to serve the proposed project during normal, single dry, and multiple dry years. Therefore, impacts would be less than significant.

c) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project's water demand exceeded the capacity of the project site's wastewater treatment provider. As discussed in Response to Checklist Question 3.19a, wastewater on the project site is treated at the San Jose Creek WRP. Implementation of the proposed project would result in the generation of approximately 1,560 gpd of wastewater, which represents less than 0.1 percent of the San Jose Creek WRP remaining available treatment capacity. The San Jose Creek WRP has sufficient remaining available treatment capacity to adequately serve the proposed project. It is anticipated that the proposed project's wastewater demand would be met, and no new entitlements or resources would be required to meet the proposed project's expected wastewater needs. Therefore, less-than-significant impacts would occur.

d-e) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would generate solid waste in excess of state or local standards, in excess of the capacity of local infrastructure, impair the attainment of solid waste reduction goals, or would not comply with federal, state, and local management and reduction statutes and regulations related to solid waste. The City of West Covina is served by Athens Services, which is a private waste hauler contracted by the City to provide solid waste collection and recycling services to residents and businesses. The City's solid waste disposal activities are required to comply with the California Integrated Waste Management Act of 1989 (Assembly Bill 939). Assembly Bill 939 requires jurisdictions to meet the statewide goal to divert 25 percent and 50 percent of solid waste generated by year 1995 and 2000. Solid waste collected by Athens Services is not directly disposed of at landfills serving the City. Instead, solid waste collected by Athens Services is transported to the Athens Services-owned Materials Recovery Facility (MRF) in the City of Industry. Solid waste received at the MRF is sorted, and all recyclable materials found are removed and recycled. The remaining solid waste that cannot be recycled is sent to the Victorville Sanitary Landfill. The Victorville Sanitary Landfill has a max permitted throughput of 3,000.00 tons per day, a max permitted capacity of 83,200,000 cubic yards, and a remaining capacity of 81,510,000 cubic yards.[33] Assuming a solid waste generation

[32]Based on the Los Angeles County Sanitation District wastewater generation rate of 260 gallons per day per for single-family residential home. Estimated water demand is assumed to be 120 percent of wastewater flows.

[33]CalRecycle, *Facility/Site Summary Details: Victorville Sanitary Landfill*, http://www.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0045/Detail/, accessed October 20, 2020.

factor of 12.23 lbs/household/day,[34] implementation of the proposed project is estimated to generate approximately 73.28 lbs per day of solid waste, or 13.4 tons per year, which represent less than 0.1 percent of the permitted daily intake capacity at the Victorville Sanitary Landfill. The Victorville Sanitary landfill, therefore, has enough permitted capacity to accommodate the proposed project's waste disposal needs. It should be noted that a portion of solid waste generated as a result of the proposed project would be recycle in accordance to Assembly Bill 939. The proposed project would not generate excess solid waste that would impair the City's attainment of solid waste diversion per Assembly Bill 939. The proposed project can be adequately served by the City's solid waste provider and would comply with applicable regulations related to solid waste. Therefore, less-than-significant impacts would occur.

[34]CalRecycle, *Estimated Solid Waste Generation Rates*, available at https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates, accessed October 2020.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.20 WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☑
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☑
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☑

a) **No Impact**. A significant impact would occur if the proposed project would be located in or near a state responsibility area or land classified as a very high fire hazard severity zone (VHFHSZ) and would substantially impair an adopted emergency response plan or emergency evacuation plan. The project site is not located in or near a state responsibility area or in a VHFHSZ, as identified by CalFire. The nearest fire hazard severity zone (including VHFHSZ) is located approximately 1.2 miles east of the project site.[35] As discussed in Response to Checklist Question 3.9f, the proposed project would have no impact related to emergency response plan or emergency evacuation plan. Therefore, no impact would occur.

b) **No Impact**. A significant impact would occur if the proposed project would be located in or near a state responsibility area or land classified as VHFHSZ and would exacerbate wildfire risks that would expose project occupants to pollutant concentrations for a wildfire or the uncontrolled spread of a wildfire. As discussed in Response to Checklist Question 3.20a, the proposed project is not located in or near a state responsibility area or in a VHFHSZ.

The southern California region, including the City of West Covina, is susceptible to strong wind gusts that typically have little to no accommodating precipitation, which are known as windstorms. The City is typically affected by the Santa Ana winds, which are generally warm, offshore dry winds that originate from the east or northeast.[36] Because southern California is generally a windstorm susceptible region, much of this region encounters winds capable of spreading wildfire and wildfire pollutants. However, areas that are

[35]California Department of Forestry and Fire Protection *California Fire Hazard Severity Zone Viewer*, https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414, accessed October 2020.

[36]City of West Covina, *Natural Hazard Mitigation Plan: Section 10: Windstorm*, https://www.westcovina.org/departments/fire/disaster-preparedness/natural-hazard-mitigation-plan/section-10-windstorm, accessed October 2020.

especially susceptible to exacerbate such fire risks are those that receive high gusts of wind and are within a fire hazard severity zone and has been a historically burn area. The project site is not within a fire hazard severity zone or a historic burn area.[37] Thus, the proposed project would not exacerbate wildfire risks that would expose project occupants to uncontrolled spread of a wildfire or the pollutant concentrations from wildfire. No impact would occur.

c) **No Impact**. A significant impact would occur if the proposed project would be located in or near a state responsibility area or land classified as VHFHSZ and would require the installation or maintenance of infrastructure that may exacerbate the risk of fire or ongoing impacts to the environment. As discussed in Response to Checklist Question 3.20a, the project site is not located in or near a state responsibility area or in a VHFHSZ. The proposed project would not require additional installation or maintenance of roads, fuel breaks, emergency water sources, or power lines. Existing utilities would adequately serve the proposed project. Thus, the proposed project would not require installation or maintenance of associated structures that may exacerbate fire risk or that may require in temporary or ongoing impacts to the environment. Furthermore, the proposed project would adhere to relevant building design codes, including the State and City fire codes. Therefore, no impact would occur.

d) **No Impact**. A significant impact would occur if the proposed project would be located in or near a state responsibility area or land classified as VHFHSZ and would expose people or structures to significant risks after a wildfire, such as downslope or downstream flooding or landslides. As discussed in Response to Checklist Question 3.20a, the proposed project is not located in or near a state responsibility area or in a VHFHSZ. The project site and its surrounding area is relatively flat. No slopes or hills are located in the vicinity of the project site and, thus, people or structures would not be exposed to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impact would occur.

[37] City of West Covina, *Natural Hazard Mitigation Plan: Section 10: Windstorm*, https://www.westcovina.org/departments/fire/disaster-preparedness/natural-hazard-mitigation-plan/section-10-windstorm, accessed October 2020

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.21 MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☑	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

a) **Less-Than-Significant Impact**. A significant impact would occur if the proposed project would have the potential to degrade the quality of the environment; occur within fish, plant, or wildlife habitats; or eliminate historical, archaeological, or paleontological resources. The project site is located within an urban area and has been previously disturbed. As discussed throughout this IS/MND, the proposed project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The project site does not contain any cultural resources and would not eliminate important examples of the major periods of California history or prehistory. Therefore, impacts are expected to be less than significant.

b) **Less-Than-Significant Impact**. As discussed throughout this IS/MND, the proposed project would have less-than-significant impacts (with and without incorporation of mitigation measures) or no impacts on the environment. As a result, the proposed project would not significantly contribute to cumulative impacts even though other projects may be constructed in the surrounding area. The proposed project is not expected to have cumulative considerable effects on the environment. Therefore, a less-than-significant impact is anticipated.

c) **Less-Than-Significant Impact**. A significant impact may occur if the proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. As discussed throughout this IS/MND, the proposed project would have less-than-significant impacts (with and without incorporation of mitigation measures) or no impacts on the environment. Thus, the proposed project would not have the potential to

result in substantial adverse effects on human beings, either directly or indirectly. Impacts would be less than significant.

4.0 LIST OF PREPARERS AND SOURCES CONSULTED

This section also documents all the sources that contributed in the preparation of this IS/MND.

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Appendix A

Air Quality Emissions Calculations

Tentative Tract Map No. 74976 (642 & 704 E. Francisquito Avenue

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.23	4,696.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,311.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,311.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,388.00	3
Single Family Housing	1.00	Dwelling Unit	0.49	3,404.00	0
Single Family Housing	1.00	Dwelling Unit	0.46	2,778.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE 2019 Power Mix 35% RPS & 534 lbsCO2e/MWh delivered.

Land Use - 1.87 acre lot. Construction of 4 new houses and expansion to 2 existing houses on Lots 5 and 6. All homes are built/renovated to maximum allowed square footage on their respective lots.

Construction Phase - Construction schedule from applicant. Construction to start Oct 2021 and operational by Oct 2022. 6 days of work/week. Demolition: 1 week. Site Prep & Grading: 2-3 weeks. Construction: 9-11 months.

Off-road Equipment - Construction info from applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction info provided by Applicant

Trips and VMT - Reflects worker round trips

Demolition - Demolition: 1,200 sq ft on lot 5, 400 sq ft on lot 6

Grading - 0.1 acres graded per day for 10 days during site prep.
0.5 acres graded per day for 20 days during site grading.

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Off-road Equipment -

Vehicle Trips - From KOA traffic study: Project will result in 50 daily trips.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	200.00	250.00
tblConstructionPhase	NumDays	20.00	6.00
tblConstructionPhase	NumDays	4.00	10.00

tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	7.50	1.50
tblGrading	AcresOfGrading	5.00	1.00
tblLandUse	LandUseSquareFeet	1,800.00	4,696.00
tblLandUse	LandUseSquareFeet	1,800.00	4,311.00
tblLandUse	LandUseSquareFeet	1,800.00	4,311.00
tblLandUse	LandUseSquareFeet	1,800.00	4,388.00
tblLandUse	LandUseSquareFeet	1,800.00	3,404.00
tblLandUse	LandUseSquareFeet	1,800.00	2,778.00
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.49
tblLandUse	LotAcreage	0.32	0.46
tblLandUse	Population	3.00	0.00
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblTripsAndVMT	VendorTripNumber	1.00	4.00

tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	2.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	9.91	8.33
tblVehicleTrips	SU_TR	8.62	8.33
tblVehicleTrips	WD_TR	9.52	8.33

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.0703	33.1876	15.1332	0.0345	12.1035	1.4716	13.5751	6.4958	1.3539	7.8497	0.0000	3,349.4514	3,349.4514	1.0202	0.0000	3,374.9572
2022	16.1335	12.9892	14.1895	0.0272	0.4727	0.5931	1.0658	0.1259	0.5728	0.6987	0.0000	2,521.3587	2,521.3587	0.4536	0.0000	2,530.5253
Maximum	**16.1335**	**33.1876**	**15.1332**	**0.0345**	**12.1035**	**1.4716**	**13.5751**	**6.4958**	**1.3539**	**7.8497**	**0.0000**	**3,349.4514**	**3,349.4514**	**1.0202**	**0.0000**	**3,374.9572**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	3.0703	33.1876	15.1332	0.0345	4.8567	1.4716	6.3284	2.5695	1.3539	3.9234	0.0000	3,349.4514	3,349.4514	1.0202	0.0000	3,374.9572
2022	16.1335	12.9892	14.1895	0.0272	0.4727	0.5931	1.0658	0.1259	0.5728	0.6987	0.0000	2,521.3587	2,521.3587	0.4536	0.0000	2,530.5253
Maximum	**16.1335**	**33.1876**	**15.1332**	**0.0345**	**4.8567**	**1.4716**	**6.3284**	**2.5695**	**1.3539**	**3.9234**	**0.0000**	**3,349.4514**	**3,349.4514**	**1.0202**	**0.0000**	**3,374.9572**

	ROG	NOx	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**	**57.62**	**0.00**	**49.50**	**59.29**	**0.00**	**45.93**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.9622	0.7527	18.8034	0.0467		2.7527	2.7527		2.7527	2.7527	337.2091	648.8913	986.1004	1.0065	0.0229	1,018.0829
Energy	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917
Mobile	0.0875	0.4421	1.1629	4.2500e-003	0.3632	3.6200e-003	0.3668	0.0972	3.3700e-003	0.1006		432.6147	432.6147	0.0226		433.1808
Total	**10.0545**	**1.2364**	**19.9841**	**0.0513**	**0.3632**	**2.7597**	**3.1229**	**0.0972**	**2.7595**	**2.8567**	**337.2091**	**1,134.6817**	**1,471.8908**	**1.0301**	**0.0239**	**1,504.7553**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5918	0.5432	0.7243	3.4600e-003		0.0462	0.0462		0.0462	0.0462	0.0000	687.0090	687.0090	0.0140	0.0126	691.1077
Energy	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917
Mobile	0.0895	0.4556	1.2111	4.4500e-003	0.3814	3.7800e-003	0.3852	0.1021	3.5300e-003	0.1056		453.2546	453.2546	0.0236		453.8445
Total	**0.6862**	**1.0404**	**1.9530**	**8.1800e-003**	**0.3814**	**0.0533**	**0.4348**	**0.1021**	**0.0531**	**0.1552**	**0.0000**	**1,193.4392**	**1,193.4392**	**0.0386**	**0.0136**	**1,198.4439**

	ROG	NOx	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	**93.18**	**15.85**	**90.23**	**84.04**	**-5.03**	**98.07**	**86.08**	**-5.03**	**98.08**	**94.57**	**100.00**	**-5.18**	**18.92**	**96.25**	**43.21**	**20.36**

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	10/4/2021	10/9/2021	6	6	
2	Site Preparation	Site Preparation	10/11/2021	11/2/2021	6	20	
3	Grading	Grading	10/22/2021	11/2/2021	6	10	
4	Building Construction	Building Construction	11/15/2021	9/1/2022	6	250	
5	Paving	Paving	9/2/2022	9/13/2022	6	10	
6	Architectural Coating	Architectural Coating	9/2/2022	9/13/2022	6	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 48,373; Residential Outdoor: 16,124; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	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	8.00	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	2	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	10.00	0.00	7.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2625	0.0000	0.2625	0.0397	0.0000	0.0397			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.2625**	**1.0409**	**1.3034**	**0.0397**	**0.9715**	**1.0112**		**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.9600e-003	0.3168	0.0778	8.9000e-004	0.0204	9.8000e-004	0.0214	5.5900e-003	9.3000e-004	6.5200e-003		97.0414	97.0414	6.9400e-003		97.2148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0576**	**0.3494**	**0.4461**	**1.9700e-003**	**0.1322**	**1.8800e-003**	**0.1341**	**0.0352**	**1.7600e-003**	**0.0370**		**204.2665**	**204.2665**	**0.0101**		**204.5188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1024	0.0000	0.1024	0.0155	0.0000	0.0155			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	**1.9930**	**19.6966**	**14.4925**	**0.0241**	**0.1024**	**1.0409**	**1.1433**	**0.0155**	**0.9715**	**0.9870**	**0.0000**	**2,322.7171**	**2,322.7171**	**0.5940**		**2,337.5658**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.9600e-003	0.3168	0.0778	8.9000e-004	0.0204	9.8000e-004	0.0214	5.5900e-003	9.3000e-004	6.5200e-003		97.0414	97.0414	6.9400e-003		97.2148
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0576**	**0.3494**	**0.4461**	**1.9700e-003**	**0.1322**	**1.8800e-003**	**0.1341**	**0.0352**	**1.7600e-003**	**0.0370**		**204.2665**	**204.2665**	**0.0101**		**204.5188**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6877	0.0000	2.6877	1.4540	0.0000	1.4540			0.0000			0.0000
Off-Road	1.6866	18.7917	8.0652	0.0183		0.8319	0.8319		0.7654	0.7654		1,769.9364	1,769.9364	0.5724		1,784.2472
Total	**1.6866**	**18.7917**	**8.0652**	**0.0183**	**2.6877**	**0.8319**	**3.5196**	**1.4540**	**0.7654**	**2.2193**		**1,769.9364**	**1,769.9364**	**0.5724**		**1,784.2472**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0477**	**0.0326**	**0.3683**	**1.0800e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2251**	**107.2251**	**3.1600e-003**		**107.3040**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0482	0.0000	1.0482	0.5670	0.0000	0.5670			0.0000			0.0000
Off-Road	1.6866	18.7917	8.0652	0.0183		0.8319	0.8319		0.7654	0.7654	0.0000	1,769.9364	1,769.9364	0.5724		1,784.2472
Total	**1.6866**	**18.7917**	**8.0652**	**0.0183**	**1.0482**	**0.8319**	**1.8801**	**0.5670**	**0.7654**	**1.3324**	**0.0000**	**1,769.9364**	**1,769.9364**	**0.5724**		**1,784.2472**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0477**	**0.0326**	**0.3683**	**1.0800e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2251**	**107.2251**	**3.1600e-003**		**107.3040**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.1922	0.0000	9.1922	4.9825	0.0000	4.9825			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**9.1922**	**0.6379**	**9.8301**	**4.9825**	**0.5869**	**5.5694**		**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0477**	**0.0326**	**0.3683**	**1.0800e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2251**	**107.2251**	**3.1600e-003**		**107.3040**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5850	0.0000	3.5850	1.9432	0.0000	1.9432			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**3.5850**	**0.6379**	**4.2229**	**1.9432**	**0.5869**	**2.5301**	**0.0000**	**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0477**	**0.0326**	**0.3683**	**1.0800e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**107.2251**	**107.2251**	**3.1600e-003**		**107.3040**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.1907	0.1305	1.4730	4.3000e-003	0.4471	3.6100e-003	0.4507	0.1186	3.3300e-003	0.1219		428.9004	428.9004	0.0126		429.2160
Total	**0.2035**	**0.5180**	**1.5853**	**5.3000e-003**	**0.4727**	**4.4300e-003**	**0.4772**	**0.1259**	**4.1100e-003**	**0.1301**		**535.8387**	**535.8387**	**0.0195**		**536.3268**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.1907	0.1305	1.4730	4.3000e-003	0.4471	3.6100e-003	0.4507	0.1186	3.3300e-003	0.1219		428.9004	428.9004	0.0126		429.2160
Total	**0.2035**	**0.5180**	**1.5853**	**5.3000e-003**	**0.4727**	**4.4300e-003**	**0.4772**	**0.1259**	**4.1100e-003**	**0.1301**		**535.8387**	**535.8387**	**0.0195**		**536.3268**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.1791	0.1178	1.3567	4.1500e-003	0.4471	3.5000e-003	0.4506	0.1186	3.2200e-003	0.1218		413.8278	413.8278	0.0114		414.1127
Total	**0.1911**	**0.4861**	**1.4630**	**5.1400e-003**	**0.4727**	**4.2200e-003**	**0.4769**	**0.1259**	**3.9100e-003**	**0.1299**		**519.8159**	**519.8159**	**0.0181**		**520.2673**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.1791	0.1178	1.3567	4.1500e-003	0.4471	3.5000e-003	0.4506	0.1186	3.2200e-003	0.1218		413.8278	413.8278	0.0114		414.1127
Total	**0.1911**	**0.4861**	**1.4630**	**5.1400e-003**	**0.4727**	**4.2200e-003**	**0.4769**	**0.1259**	**3.9100e-003**	**0.1299**		**519.8159**	**519.8159**	**0.0181**		**520.2673**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.0717**	**0.0471**	**0.5427**	**1.6600e-003**	**0.1788**	**1.4000e-003**	**0.1802**	**0.0474**	**1.2900e-003**	**0.0487**		**165.5311**	**165.5311**	**4.5600e-003**		**165.6451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.0717**	**0.0471**	**0.5427**	**1.6600e-003**	**0.1788**	**1.4000e-003**	**0.1802**	**0.0474**	**1.2900e-003**	**0.0487**		**165.5311**	**165.5311**	**4.5600e-003**		**165.6451**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634		562.8961	562.8961	0.0367		563.8123
Total	**15.3563**	**2.8170**	**3.6272**	**5.9400e-003**		**0.1634**	**0.1634**		**0.1634**	**0.1634**		**562.8961**	**562.8961**	**0.0367**		**563.8123**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0179	0.0118	0.1357	4.2000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		41.3828	41.3828	1.1400e-003		41.4113
Total	**0.0179**	**0.0118**	**0.1357**	**4.2000e-004**	**0.0447**	**3.5000e-004**	**0.0451**	**0.0119**	**3.2000e-004**	**0.0122**		**41.3828**	**41.3828**	**1.1400e-003**		**41.4113**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.9472					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634	0.0000	562.8961	562.8961	0.0367		563.8123
Total	**15.3563**	**2.8170**	**3.6272**	**5.9400e-003**		**0.1634**	**0.1634**		**0.1634**	**0.1634**	**0.0000**	**562.8961**	**562.8961**	**0.0367**		**563.8123**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0179	0.0118	0.1357	4.2000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		41.3828	41.3828	1.1400e-003		41.4113
Total	**0.0179**	**0.0118**	**0.1357**	**4.2000e-004**	**0.0447**	**3.5000e-004**	**0.0451**	**0.0119**	**3.2000e-004**	**0.0122**		**41.3828**	**41.3828**	**1.1400e-003**		**41.4113**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0895	0.4556	1.2111	4.4500e-003	0.3814	3.7800e-003	0.3852	0.1021	3.5300e-003	0.1056		453.2546	453.2546	0.0236		453.8445
Unmitigated	0.0875	0.4421	1.1629	4.2500e-003	0.3632	3.6200e-003	0.3668	0.0972	3.3700e-003	0.1006		432.6147	432.6147	0.0226		433.1808

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Single Family Housing	8.33	8.33	8.33	28,465	29,896
Total	49.98	49.98	49.98	170,789	179,378

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
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917
NaturalGas Unmitigated	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	75.3322	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917
Total		**4.8700e-003**	**0.0417**	**0.0177**	**2.7000e-004**		**3.3700e-003**	**3.3700e-003**		**3.3700e-003**	**3.3700e-003**		**53.1757**	**53.1757**	**1.0200e-003**	**9.7000e-004**	**53.4917**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.0753322	4.8700e-003	0.0417	0.0177	2.7000e-004		3.3700e-003	3.3700e-003		3.3700e-003	3.3700e-003		53.1757	53.1757	1.0200e-003	9.7000e-004	53.4917
Total		**4.8700e-003**	**0.0417**	**0.0177**	**2.7000e-004**		**3.3700e-003**	**3.3700e-003**		**3.3700e-003**	**3.3700e-003**		**53.1757**	**53.1757**	**1.0200e-003**	**9.7000e-004**	**53.4917**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5918	0.5432	0.7243	3.4600e-003		0.0462	0.0462		0.0462	0.0462	0.0000	687.0090	687.0090	0.0140	0.0126	691.1077
Unmitigated	9.9622	0.7527	18.8034	0.0467		2.7527	2.7527		2.7527	2.7527	337.2091	648.8913	986.1004	1.0065	0.0229	1,018.0829

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	9.4333	0.7469	18.3079	0.0467		2.7500	2.7500		2.7500	2.7500	337.2091	648.0000	985.2091	1.0056	0.0229	1,017.1701
Landscaping	0.0150	5.7200e-003	0.4955	3.0000e-005		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003		0.8913	0.8913	8.6000e-004		0.9128
Total	**9.9622**	**0.7527**	**18.8034**	**0.0467**		**2.7527**	**2.7527**		**2.7527**	**2.7527**	**337.2091**	**648.8913**	**986.1004**	**1.0065**	**0.0229**	**1,018.0829**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0410					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0629	0.5375	0.2287	3.4300e-003		0.0435	0.0435		0.0435	0.0435	0.0000	686.1177	686.1177	0.0132	0.0126	690.1949
Landscaping	0.0150	5.7200e-003	0.4955	3.0000e-005		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003		0.8913	0.8913	8.6000e-004		0.9128
Total	**0.5918**	**0.5432**	**0.7243**	**3.4600e-003**		**0.0462**	**0.0462**		**0.0462**	**0.0462**	**0.0000**	**687.0090**	**687.0090**	**0.0140**	**0.0126**	**691.1077**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Tentative Tract Map No. 74976 (642 & 704 E. Francisquito Avenue

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.23	4,696.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,311.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,311.00	3
Single Family Housing	1.00	Dwelling Unit	0.23	4,388.00	3
Single Family Housing	1.00	Dwelling Unit	0.49	3,404.00	0
Single Family Housing	1.00	Dwelling Unit	0.46	2,778.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	531.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SCE 2019 Power Mix 35% RPS & 534 lbsCO2e/MWh delivered.

Land Use - 1.87 acre lot. Construction of 4 new houses and expansion to 2 existing houses on Lots 5 and 6. All homes are built/renovated to maximum allowed square footage on their respective lots.

Construction Phase - Construction schedule from applicant. Construction to start Oct 2021 and operational by Oct 2022. 6 days of work/week. Demolition: 1 week. Site Prep & Grading: 2-3 weeks. Construction: 9-11 months.

Off-road Equipment - Construction info from applicant

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Conservative assumption: continuous operation.

Off-road Equipment -

Off-road Equipment - Construction info provided by Applicant

Trips and VMT - Reflects worker round trips

Demolition - Demolition: 1,200 sq ft on lot 5, 400 sq ft on lot 6

Grading -

Vehicle Trips - From KOA traffic study: Project will result in 50 daily trips.

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	6.00
tblConstructionPhase	NumDays	2.00	6.00
tblConstructionPhase	NumDays	4.00	18.00

tblConstructionPhase	NumDays	200.00	276.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblLandUse	LandUseSquareFeet	1,800.00	4,696.00
tblLandUse	LandUseSquareFeet	1,800.00	4,311.00
tblLandUse	LandUseSquareFeet	1,800.00	4,311.00
tblLandUse	LandUseSquareFeet	1,800.00	4,388.00
tblLandUse	LandUseSquareFeet	1,800.00	3,404.00
tblLandUse	LandUseSquareFeet	1,800.00	2,778.00
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.23
tblLandUse	LotAcreage	0.32	0.49
tblLandUse	LotAcreage	0.32	0.46
tblLandUse	Population	3.00	0.00
tblLandUse	Population	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	531.44
tblTripsAndVMT	HaulingTripNumber	7.00	10.00
tblTripsAndVMT	VendorTripNumber	1.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	2.00	40.00
tblTripsAndVMT	WorkerTripNumber	13.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblVehicleTrips	HO_TTP	40.60	40.00
tblVehicleTrips	HS_TTP	19.20	20.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	9.91	8.34
tblVehicleTrips	SU_TR	8.62	8.34
tblVehicleTrips	WD_TR	9.52	8.34

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0743	0.6333	0.4912	9.9000e-004	0.0929	0.0293	0.1223	0.0442	0.0278	0.0719	0.0000	85.2060	85.2060	0.0162	0.0000	85.6101
2022	0.2963	1.6400	1.7671	3.5000e-003	0.0604	0.0727	0.1330	0.0162	0.0701	0.0863	0.0000	297.3466	297.3466	0.0428	0.0000	298.4169
Maximum	**0.2963**	**1.6400**	**1.7671**	**3.5000e-003**	**0.0929**	**0.0727**	**0.1330**	**0.0442**	**0.0701**	**0.0863**	**0.0000**	**297.3466**	**297.3466**	**0.0428**	**0.0000**	**298.4169**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0743	0.6333	0.4912	9.9000e-004	0.0445	0.0293	0.0738	0.0194	0.0278	0.0472	0.0000	85.2059	85.2059	0.0162	0.0000	85.6100
2022	0.2963	1.6400	1.7671	3.5000e-003	0.0604	0.0727	0.1330	0.0162	0.0701	0.0863	0.0000	297.3463	297.3463	0.0428	0.0000	298.4166
Maximum	**0.2963**	**1.6400**	**1.7671**	**3.5000e-003**	**0.0604**	**0.0727**	**0.1330**	**0.0194**	**0.0701**	**0.0863**	**0.0000**	**297.3463**	**297.3463**	**0.0428**	**0.0000**	**298.4166**

	ROG	NOx	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**	**31.61**	**0.00**	**18.98**	**40.96**	**0.00**	**15.63**	**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	10-4-2021	1-3-2022	0.6942	0.6942
2	1-4-2022	4-3-2022	0.5939	0.5939
3	4-4-2022	7-3-2022	0.5995	0.5995
4	7-4-2022	9-30-2022	0.6455	0.6455
		Highest	0.6942	0.6942

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	0.2136	0.0101	0.2908	5.9000e-004		0.0347	0.0347		0.0347	0.0347	3.8239	7.4493	11.2732	0.0115	2.6000e-004	11.6380
Energy	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	20.3394	20.3394	8.0000e-004	2.9000e-004	20.4463
Mobile	0.0156	0.0819	0.2145	7.8000e-004	0.0647	6.5000e-004	0.0653	0.0173	6.1000e-004	0.0180	0.0000	72.2917	72.2917	3.7200e-003	0.0000	72.3847
Waste						0.0000	0.0000		0.0000	0.0000	0.9987	0.0000	0.9987	0.0590	0.0000	2.4743
Water						0.0000	0.0000		0.0000	0.0000	0.1240	1.8871	2.0111	0.0128	3.2000e-004	2.4281
Total	**0.2300**	**0.0995**	**0.5085**	**1.4200e-003**	**0.0647**	**0.0360**	**0.1007**	**0.0173**	**0.0359**	**0.0533**	**4.9466**	**101.9675**	**106.9141**	**0.0879**	**8.7000e-004**	**109.3714**

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	0.0965	7.4300e-003	0.0648	5.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	7.8815	7.8815	2.5000e-004	1.4000e-004	7.9302
Energy	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	14.2226	14.2226	4.6000e-004	2.2000e-004	14.3005
Mobile	0.0159	0.0844	0.2234	8.2000e-004	0.0679	6.8000e-004	0.0686	0.0182	6.4000e-004	0.0189	0.0000	75.7319	75.7319	3.8800e-003	0.0000	75.8288
Waste						0.0000	0.0000		0.0000	0.0000	0.4994	0.0000	0.4994	0.0295	0.0000	1.2371
Water						0.0000	0.0000		0.0000	0.0000	0.0930	1.4153	1.5083	9.6300e-003	2.4000e-004	1.8211
Total	**0.1133**	**0.0994**	**0.2915**	**9.2000e-004**	**0.0679**	**2.1800e-003**	**0.0701**	**0.0182**	**2.1400e-003**	**0.0204**	**0.5924**	**99.2513**	**99.8437**	**0.0437**	**6.0000e-004**	**101.1178**

	ROG	NOx	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	**50.76**	**0.12**	**42.68**	**35.21**	**-5.02**	**93.94**	**30.34**	**-5.02**	**94.05**	**61.81**	**88.02**	**2.66**	**6.61**	**50.24**	**31.03**	**7.55**

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	10/4/2021	10/9/2021	6	6	
2	Site Preparation	Site Preparation	10/11/2021	10/16/2021	6	6	
3	Grading	Grading	10/18/2021	11/6/2021	6	18	
4	Building Construction	Building Construction	11/8/2021	9/24/2022	6	276	
5	Paving	Paving	9/19/2022	10/8/2022	6	18	
6	Architectural Coating	Architectural Coating	9/19/2022	10/8/2022	6	18	

Acres of Grading (Site Preparation Phase): 3

Acres of Grading (Grading Phase): 9

Acres of Paving: 0

Residential Indoor: 48,373; Residential Outdoor: 16,124; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	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	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	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	1	8.00	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	2	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	10.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	40.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9000e-004	0.0000	7.9000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9800e-003	0.0591	0.0435	7.0000e-005		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	6.3214	6.3214	1.6200e-003	0.0000	6.3618
Total	**5.9800e-003**	**0.0591**	**0.0435**	**7.0000e-005**	**7.9000e-004**	**3.1200e-003**	**3.9100e-003**	**1.2000e-004**	**2.9100e-003**	**3.0300e-003**	**0.0000**	**6.3214**	**6.3214**	**1.6200e-003**	**0.0000**	**6.3618**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3800e-003	3.2000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3812	0.3812	3.0000e-005	0.0000	0.3818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
Total	**1.7000e-004**	**1.4800e-003**	**1.4500e-003**	**0.0000**	**4.2000e-004**	**0.0000**	**4.2000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.6778**	**0.6778**	**4.0000e-005**	**0.0000**	**0.6787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					3.1000e-004	0.0000	3.1000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9800e-003	0.0591	0.0435	7.0000e-005		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	6.3214	6.3214	1.6200e-003	0.0000	6.3618
Total	**5.9800e-003**	**0.0591**	**0.0435**	**7.0000e-005**	**3.1000e-004**	**3.1200e-003**	**3.4300e-003**	**5.0000e-005**	**2.9100e-003**	**2.9600e-003**	**0.0000**	**6.3214**	**6.3214**	**1.6200e-003**	**0.0000**	**6.3618**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3800e-003	3.2000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3812	0.3812	3.0000e-005	0.0000	0.3818
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
Total	**1.7000e-004**	**1.4800e-003**	**1.4500e-003**	**0.0000**	**4.2000e-004**	**0.0000**	**4.2000e-004**	**1.1000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.6778**	**0.6778**	**4.0000e-005**	**0.0000**	**0.6787**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0600e-003	0.0564	0.0242	5.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	4.8170	4.8170	1.5600e-003	0.0000	4.8559
Total	**5.0600e-003**	**0.0564**	**0.0242**	**5.0000e-005**	**0.0197**	**2.5000e-003**	**0.0222**	**0.0101**	**2.3000e-003**	**0.0124**	**0.0000**	**4.8170**	**4.8170**	**1.5600e-003**	**0.0000**	**4.8559**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
Total	**1.3000e-004**	**1.0000e-004**	**1.1300e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2967**	**0.2967**	**1.0000e-005**	**0.0000**	**0.2969**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					7.6700e-003	0.0000	7.6700e-003	3.9400e-003	0.0000	3.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0600e-003	0.0564	0.0242	5.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	4.8170	4.8170	1.5600e-003	0.0000	4.8559
Total	**5.0600e-003**	**0.0564**	**0.0242**	**5.0000e-005**	**7.6700e-003**	**2.5000e-003**	**0.0102**	**3.9400e-003**	**2.3000e-003**	**6.2400e-003**	**0.0000**	**4.8170**	**4.8170**	**1.5600e-003**	**0.0000**	**4.8559**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.1300e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2967	0.2967	1.0000e-005	0.0000	0.2969
Total	**1.3000e-004**	**1.0000e-004**	**1.1300e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2967**	**0.2967**	**1.0000e-005**	**0.0000**	**0.2969**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0590	0.0000	0.0590	0.0303	0.0000	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1691	0.0726	1.6000e-004		7.4900e-003	7.4900e-003		6.8900e-003	6.8900e-003	0.0000	14.4509	14.4509	4.6700e-003	0.0000	14.5678
Total	**0.0152**	**0.1691**	**0.0726**	**1.6000e-004**	**0.0590**	**7.4900e-003**	**0.0665**	**0.0303**	**6.8900e-003**	**0.0372**	**0.0000**	**14.4509**	**14.4509**	**4.6700e-003**	**0.0000**	**14.5678**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**3.9000e-004**	**3.0000e-004**	**3.4000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8900**	**0.8900**	**3.0000e-005**	**0.0000**	**0.8907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0230	0.0000	0.0230	0.0118	0.0000	0.0118	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.1691	0.0726	1.6000e-004		7.4900e-003	7.4900e-003		6.8900e-003	6.8900e-003	0.0000	14.4509	14.4509	4.6700e-003	0.0000	14.5678
Total	**0.0152**	**0.1691**	**0.0726**	**1.6000e-004**	**0.0230**	**7.4900e-003**	**0.0305**	**0.0118**	**6.8900e-003**	**0.0187**	**0.0000**	**14.4509**	**14.4509**	**4.6700e-003**	**0.0000**	**14.5678**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**3.9000e-004**	**3.0000e-004**	**3.4000e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8900**	**0.8900**	**3.0000e-005**	**0.0000**	**0.8907**

3.5 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	0.0426	0.3205	0.3031	5.2000e-004		0.0161	0.0161		0.0155	0.0155	0.0000	42.6637	42.6637	7.6200e-003	0.0000	42.8541
Total	**0.0426**	**0.3205**	**0.3031**	**5.2000e-004**		**0.0161**	**0.0161**		**0.0155**	**0.0155**	**0.0000**	**42.6637**	**42.6637**	**7.6200e-003**	**0.0000**	**42.8541**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.3000e-004	0.0232	6.2900e-003	6.0000e-005	1.4800e-003	5.0000e-005	1.5300e-003	4.3000e-004	5.0000e-005	4.7000e-004	0.0000	5.7927	5.7927	3.6000e-004	0.0000	5.8016
Worker	4.0400e-003	3.1500e-003	0.0356	1.0000e-004	0.0103	8.0000e-005	0.0104	2.7400e-003	8.0000e-005	2.8100e-003	0.0000	9.2958	9.2958	2.7000e-004	0.0000	9.3027
Total	**4.7700e-003**	**0.0263**	**0.0418**	**1.6000e-004**	**0.0118**	**1.3000e-004**	**0.0119**	**3.1700e-003**	**1.3000e-004**	**3.2800e-003**	**0.0000**	**15.0885**	**15.0885**	**6.3000e-004**	**0.0000**	**15.1042**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0426	0.3205	0.3031	5.2000e-004		0.0161	0.0161		0.0155	0.0155	0.0000	42.6636	42.6636	7.6200e-003	0.0000	42.8541
Total	**0.0426**	**0.3205**	**0.3031**	**5.2000e-004**		**0.0161**	**0.0161**		**0.0155**	**0.0155**	**0.0000**	**42.6636**	**42.6636**	**7.6200e-003**	**0.0000**	**42.8541**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.3000e-004	0.0232	6.2900e-003	6.0000e-005	1.4800e-003	5.0000e-005	1.5300e-003	4.3000e-004	5.0000e-005	4.7000e-004	0.0000	5.7927	5.7927	3.6000e-004	0.0000	5.8016
Worker	4.0400e-003	3.1500e-003	0.0356	1.0000e-004	0.0103	8.0000e-005	0.0104	2.7400e-003	8.0000e-005	2.8100e-003	0.0000	9.2958	9.2958	2.7000e-004	0.0000	9.3027
Total	**4.7700e-003**	**0.0263**	**0.0418**	**1.6000e-004**	**0.0118**	**1.3000e-004**	**0.0119**	**3.1700e-003**	**1.3000e-004**	**3.2800e-003**	**0.0000**	**15.0885**	**15.0885**	**6.3000e-004**	**0.0000**	**15.1042**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1888	1.4316	1.4572	2.5200e-003		0.0674	0.0674		0.0651	0.0651	0.0000	207.9056	207.9056	0.0362	0.0000	208.8108
Total	**0.1888**	**1.4316**	**1.4572**	**2.5200e-003**		**0.0674**	**0.0674**		**0.0651**	**0.0651**	**0.0000**	**207.9056**	**207.9056**	**0.0362**	**0.0000**	**208.8108**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1074	0.0290	2.9000e-004	7.2100e-003	2.0000e-004	7.4100e-003	2.0800e-003	1.9000e-004	2.2700e-003	0.0000	27.9760	27.9760	1.6700e-003	0.0000	28.0177
Worker	0.0185	0.0139	0.1596	4.8000e-004	0.0502	4.0000e-004	0.0506	0.0133	3.7000e-004	0.0137	0.0000	43.7003	43.7003	1.2000e-003	0.0000	43.7304
Total	**0.0218**	**0.1212**	**0.1886**	**7.7000e-004**	**0.0574**	**6.0000e-004**	**0.0580**	**0.0154**	**5.6000e-004**	**0.0160**	**0.0000**	**71.6763**	**71.6763**	**2.8700e-003**	**0.0000**	**71.7481**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1888	1.4316	1.4572	2.5200e-003		0.0674	0.0674		0.0651	0.0651	0.0000	207.9053	207.9053	0.0362	0.0000	208.8106
Total	**0.1888**	**1.4316**	**1.4572**	**2.5200e-003**		**0.0674**	**0.0674**		**0.0651**	**0.0651**	**0.0000**	**207.9053**	**207.9053**	**0.0362**	**0.0000**	**208.8106**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1074	0.0290	2.9000e-004	7.2100e-003	2.0000e-004	7.4100e-003	2.0800e-003	1.9000e-004	2.2700e-003	0.0000	27.9760	27.9760	1.6700e-003	0.0000	28.0177
Worker	0.0185	0.0139	0.1596	4.8000e-004	0.0502	4.0000e-004	0.0506	0.0133	3.7000e-004	0.0137	0.0000	43.7003	43.7003	1.2000e-003	0.0000	43.7304
Total	**0.0218**	**0.1212**	**0.1886**	**7.7000e-004**	**0.0574**	**6.0000e-004**	**0.0580**	**0.0154**	**5.6000e-004**	**0.0160**	**0.0000**	**71.6763**	**71.6763**	**2.8700e-003**	**0.0000**	**71.7481**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1900e-003	0.0610	0.0793	1.2000e-004		3.1300e-003	3.1300e-003		2.8800e-003	2.8800e-003	0.0000	10.5927	10.5927	3.3600e-003	0.0000	10.6766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1900e-003**	**0.0610**	**0.0793**	**1.2000e-004**		**3.1300e-003**	**3.1300e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**10.5927**	**10.5927**	**3.3600e-003**	**0.0000**	**10.6766**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.4000e-004	6.2700e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7175	1.7175	5.0000e-005	0.0000	1.7187
Total	**7.3000e-004**	**5.4000e-004**	**6.2700e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7175**	**1.7175**	**5.0000e-005**	**0.0000**	**1.7187**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.1900e-003	0.0610	0.0793	1.2000e-004		3.1300e-003	3.1300e-003		2.8800e-003	2.8800e-003	0.0000	10.5927	10.5927	3.3600e-003	0.0000	10.6766
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1900e-003**	**0.0610**	**0.0793**	**1.2000e-004**		**3.1300e-003**	**3.1300e-003**		**2.8800e-003**	**2.8800e-003**	**0.0000**	**10.5927**	**10.5927**	**3.3600e-003**	**0.0000**	**10.6766**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.4000e-004	6.2700e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7175	1.7175	5.0000e-005	0.0000	1.7187
Total	**7.3000e-004**	**5.4000e-004**	**6.2700e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7175**	**1.7175**	**5.0000e-005**	**0.0000**	**1.7187**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033
Total	**0.0784**	**0.0254**	**0.0326**	**5.0000e-005**		**1.4700e-003**	**1.4700e-003**		**1.4700e-003**	**1.4700e-003**	**0.0000**	**4.5959**	**4.5959**	**3.0000e-004**	**0.0000**	**4.6033**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.7000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8587	0.8587	2.0000e-005	0.0000	0.8593
Total	**3.6000e-004**	**2.7000e-004**	**3.1400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8587**	**0.8587**	**2.0000e-005**	**0.0000**	**0.8593**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0747					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0254	0.0326	5.0000e-005		1.4700e-003	1.4700e-003		1.4700e-003	1.4700e-003	0.0000	4.5959	4.5959	3.0000e-004	0.0000	4.6033
Total	**0.0784**	**0.0254**	**0.0326**	**5.0000e-005**		**1.4700e-003**	**1.4700e-003**		**1.4700e-003**	**1.4700e-003**	**0.0000**	**4.5959**	**4.5959**	**3.0000e-004**	**0.0000**	**4.6033**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.7000e-004	3.1400e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8587	0.8587	2.0000e-005	0.0000	0.8593
Total	**3.6000e-004**	**2.7000e-004**	**3.1400e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**9.9000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.8587**	**0.8587**	**2.0000e-005**	**0.0000**	**0.8593**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0159	0.0844	0.2234	8.2000e-004	0.0679	6.8000e-004	0.0686	0.0182	6.4000e-004	0.0189	0.0000	75.7319	75.7319	3.8800e-003	0.0000	75.8288
Unmitigated	0.0156	0.0819	0.2145	7.8000e-004	0.0647	6.5000e-004	0.0653	0.0173	6.1000e-004	0.0180	0.0000	72.2917	72.2917	3.7200e-003	0.0000	72.3847

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Single Family Housing	8.34	8.34	8.34	28,406	29,835
Total	50.04	50.04	50.04	170,438	179,009

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
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Single Family Housing	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable 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	5.4188	5.4188	3.0000e-004	6.0000e-005	5.4444
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11.5356	11.5356	6.3000e-004	1.3000e-004	11.5902
NaturalGas Mitigated	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8038	8.8038	1.7000e-004	1.6000e-004	8.8561
NaturalGas Unmitigated	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8038	8.8038	1.7000e-004	1.6000e-004	8.8561

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					
Single Family Housing	27496.3	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8038	8.8038	1.7000e-004	1.6000e-004	8.8561
Total		**8.9000e-004**	**7.6000e-003**	**3.2300e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**8.8038**	**8.8038**	**1.7000e-004**	**1.6000e-004**	**8.8561**

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					
Single Family Housing	27496.3	8.9000e-004	7.6000e-003	3.2300e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.8038	8.8038	1.7000e-004	1.6000e-004	8.8561
Total		**8.9000e-004**	**7.6000e-003**	**3.2300e-003**	**5.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**8.8038**	**8.8038**	**1.7000e-004**	**1.6000e-004**	**8.8561**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	7975.71	11.5356	6.3000e-004	1.3000e-004	11.5902
Total		**11.5356**	**6.3000e-004**	**1.3000e-004**	**11.5902**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	3746.53	5.4188	3.0000e-004	6.0000e-005	5.4444
Total		**5.4188**	**3.0000e-004**	**6.0000e-005**	**5.4444**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0965	7.4300e-003	0.0648	5.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	7.8815	7.8815	2.5000e-004	1.4000e-004	7.9302
Unmitigated	0.2136	0.0101	0.2908	5.9000e-004		0.0347	0.0347		0.0347	0.0347	3.8239	7.4493	11.2732	0.0115	2.6000e-004	11.6380

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	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1179	9.3400e-003	0.2289	5.8000e-004		0.0344	0.0344		0.0344	0.0344	3.8239	7.3482	11.1721	0.0114	2.6000e-004	11.5345
Landscaping	1.8700e-003	7.1000e-004	0.0619	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1011	0.1011	1.0000e-004	0.0000	0.1035
Total	**0.2136**	**0.0101**	**0.2908**	**5.8000e-004**		**0.0347**	**0.0347**		**0.0347**	**0.0347**	**3.8239**	**7.4493**	**11.2732**	**0.0115**	**2.6000e-004**	**11.6380**

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	7.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0863					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.9000e-004	6.7200e-003	2.8600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7804	7.7804	1.5000e-004	1.4000e-004	7.8267
Landscaping	1.8700e-003	7.1000e-004	0.0619	0.0000		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	0.1011	0.1011	1.0000e-004	0.0000	0.1035
Total	**0.0965**	**7.4300e-003**	**0.0648**	**4.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**7.8815**	**7.8815**	**2.5000e-004**	**1.4000e-004**	**7.9302**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5083	9.6300e-003	2.4000e-004	1.8211
Unmitigated	2.0111	0.0128	3.2000e-004	2.4281

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.390924 / 0.246452	2.0111	0.0128	3.2000e-004	2.4281
Total		**2.0111**	**0.0128**	**3.2000e-004**	**2.4281**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.293193 / 0.184839	1.5083	9.6300e-003	2.4000e-004	1.8211
Total		**1.5083**	**9.6300e-003**	**2.4000e-004**	**1.8211**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4994	0.0295	0.0000	1.2371
Unmitigated	0.9987	0.0590	0.0000	2.4743

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	4.92	0.9987	0.0590	0.0000	2.4743
Total		**0.9987**	**0.0590**	**0.0000**	**2.4743**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	2.46	0.4994	0.0295	0.0000	1.2371
Total		**0.4994**	**0.0295**	**0.0000**	**1.2371**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Noise and Vibration Calculations

Noise and Vibration Calculations

Noise Formulas

Noise Distance Attenuation

Hard Site

Equation: Ni = No - 20*(log Di/Do)

Di = distance to receptor (Di>Do)

Ni = attenuated noise level of interest
No = reference noise level

Do = reference distance

Source: (Bolt, Beranek, and Newman, 1971)

Summation of Noise Levels

Equation: Ns=10 x LOG10((10^(N1/10))+(10^(N2/10))+(10^(N3/10))+(10^(N4/10)))

Ns = Noise Level Sum
N1 = Noise Level 1
N2 = Noise Level 2
N3 = Noise Level 3
N4 = Noise Level 4

Source: California Department of Transportation, Technical Noise Supplement, 2013

Construction Noise Analysis

Phased Construction Noise Levels	
Construction Equipment	**Noise Level at 50 feet (dBA)**
Demolition	
Concrete Saw	82.6
Backhoe	73.6
Dozer	77.7
Demolition Combined	84.2
Site Preparation	
Grader	81
Backhoe	73.6
Dozer	77.7
Site Preparation Combined	83.2
Grading	
Grader	81
Backhoe	73.6
Dozer	77.7
Grading combined	83.2
Building Construction	
Crane	72.6
Generator	77.6
Gradall	79.4
Backhoe	73.6
Welder	70
Building Construction Combined	82.9
Paving	
Concrete Mixer	74.8
Paver	74.2
Roller	73.0
Backhoe	73.6
Building Construction Combined	80.0
Architectural Coating	
Air Compressor	73.7
Architectural Coating Combined	73.7

Source: Federal Highway Administration, Roadway Construction Noise Model, 2008

Construction: Resulting Noise Level Increases						
Sensitive Receptor	**Distance (feet)**	**Intervening Building /a/**	**Reference Noise Level (dBA)**	**Max Construction Noise (dBA, Leq)**	**Existing Ambient (dBA, Leq)**	**New Ambient (dBA, Leq)**
Residences to the south	15	0	84.2	94.7	51.7	94.7
Residences to the west and east	50	0	84.2	84.2	51.7	84.2
Residences to the north	80	0	84.2	80.1	64.6	80.2
Residences to the east	170	4.5	84.2	69.1	51.7	69.1
Saint Stephen Baptist Church to the southwest	200	4.5	84.2	67.7	60.2	68.4
Saint Stephen Academy to the southwest	230	4.5	84.2	66.4	60.2	67.4
Residences to the south	260	4.5	84.2	65.4	48.8	65.5
Residences to the south	320	4.5	84.2	63.6	48.8	63.7
Residences to the east	330	6	84.2	61.8	46.7	61.9
Residences to the north	350	4.5	84.2	62.8	52.4	63.2
Residences to the south	420	6	84.2	59.7	52.4	60.5

/a/ -4.5 dB for on intervening row of buildings and -1.5 dB for each subsequent row

Mitigated Construction: Resulting Noise Level Increases								
Sensitive Receptor	**Distance (feet)**	**Intervening Building /a/**	**Reference Noise Level (dBA)**	**Mitigaiton /b/**	**Mitigated Noise Level**	**Max Construction Noise (dBA, Leq)**	**Existing Ambient (dBA, Leq)**	**New Ambient (dBA, Leq)**
Residences to the south	15	0	84.2	13	71.2	81.7	51.7	81.7
Residences to the west and east	50	0	84.2	13	71.2	71.2	51.7	71.2
Residences to the north	80	0	84.2	13	71.2	67.1	64.6	69.0
Residences to the east	170	4.5	84.2	13	71.2	56.1	51.7	57.4
Saint Stephen Baptist Church to the southwest	200	4.5	84.2	13	71.2	54.7	60.2	61.3
Saint Stephen Academy to the southwest	230	4.5	84.2	13	71.2	53.4	60.2	61.0
Residences to the south	260	4.5	84.2	13	71.2	52.4	48.8	54.0
Residences to the south	320	4.5	84.2	13	71.2	50.6	48.8	52.8
Residences to the east	330	6	84.2	13	71.2	48.8	46.7	50.9
Residences to the north	350	4.5	84.2	13	71.2	49.8	52.4	54.3
Residences to the south	420	6	84.2	13	71.2	46.7	52.4	53.4

/a/ -4.5 dB for on intervening row of buildings and -1.5 dB for each subsequent row
/b/ Includes a 3 dB reduction for equipment mufflers and a 10 dB reduction for a temporary noise barrier.

Vibration Formulas

Vibration PPV Attenuation

Equation: PPVequip = PPVref x (25/D)^1.5
PPV (equip) is the peak particle velocity in in/sec of the equipment adjusted for distance
PPV (ref) is the reference vibration level in in/sec at 25 feet from Table 12-2
D is the distance from the equipment to the receiver.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

Vibration VdB Attenuation

Equation: Lv(D) = Lv(25 ft) – 30log(D/25)
D = Distance (feet)
Lv(D) = Vibration Level

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

Noise Monitoring Reports

Saint Stephen Baptist Church/Academy (1720 Walnut Avenue)

624-704 Francisquito Ave._Site 1

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site 1
Start Time	1/7/2021 10:15:37 AM
Stop Time	1/7/2021 10:30:37 AM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	60.2 dB	Lmax	1	71.3 dB
Lmin	1	46 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

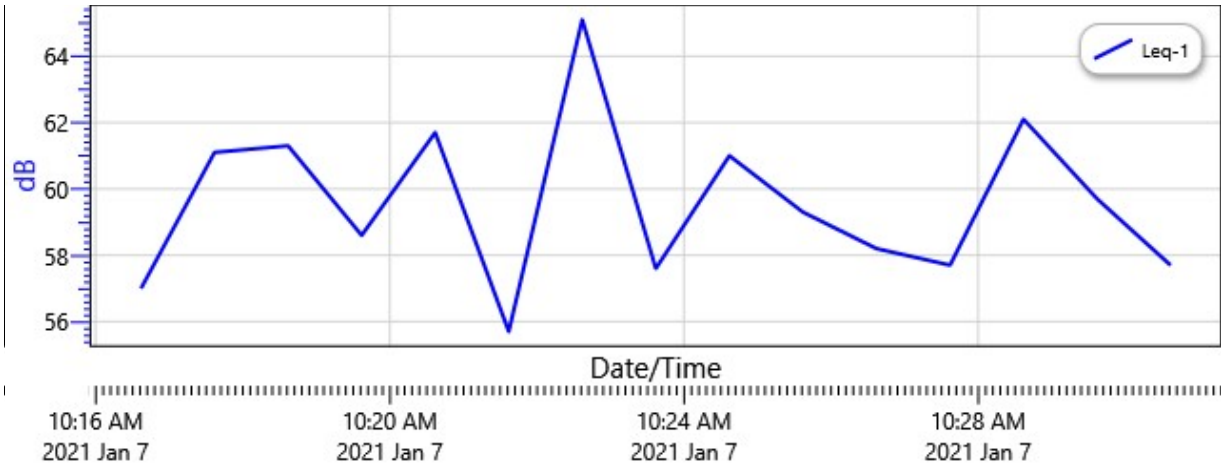
Logged Data Table

Date/Time	Leq-1
1/7/2021 10:16:37 AM	57
10:17:37 AM	61.1
10:18:37 AM	61.3
10:19:37 AM	58.6
10:20:37 AM	61.7
10:21:37 AM	55.7
10:22:37 AM	65.1
10:23:37 AM	57.6
10:24:37 AM	61
10:25:37 AM	59.3
10:26:37 AM	58.2
10:27:37 AM	57.7
10:28:37 AM	62.1

10:29:37 AM	59.7
10:30:37 AM	57.7

Logged Data Chart

642-704 Francisquito Ave._Site 1: Logged Data Chart



Noise Measurement Report Form

Project: 642 Francisquito Contract No (s): N/A

Date: 1-7-2021 Day of Week: Thursday Time: 10:15

Monitoring Site Number: 1 Monitoring Site Address: 1720 Walnut Ave

Measurement Taken By: KB

Approximate Wind Speed: 3 mph [km/hr] Approximate Wind Direction: From the South

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☑ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: 15 min

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	60.3		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. Landscaping noise in distance, Dogs barking in distance
2. Speeds approx 35 mph, low traffic volume
3. SI, Stephens
4.

Residence (740 Florence Avenue)

624-704 Francisquito Ave._Site 2

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site-2
Start Time	1/7/2021 10:36:29 AM
Stop Time	1/7/2021 10:51:29 AM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	52.4 dB	Lmax	1	70.3 dB
Lmin	1	44.8 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

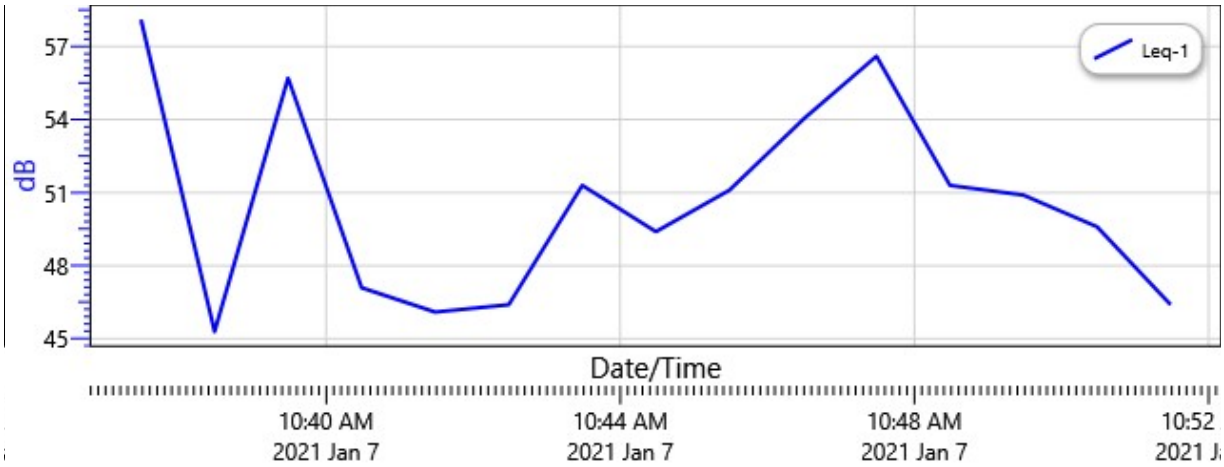
Logged Data Table

Date/Time	Leq-1
1/7/2021 10:37:29 AM	58.1
10:38:29 AM	45.3
10:39:29 AM	55.7
10:40:29 AM	47.1
10:41:29 AM	46.1
10:42:29 AM	46.4
10:43:29 AM	51.3
10:44:29 AM	49.4
10:45:29 AM	51.1
10:46:29 AM	54
10:47:29 AM	56.6
10:48:29 AM	51.3
10:49:29 AM	50.9

10:50:29 AM	49.6
10:51:29 AM	46.4

Logged Data Chart

642-704 Francisquito Ave._Site-2: Logged Data Chart



Noise Measurement Report Form

Project: 6248 Francisquito Contract No (s): N/A

Date: 1-7-2021 Day of Week: Thursday Time: 10:36

Monitoring Site Number: 2 Monitoring Site Address: 740 Florence Ave

Measurement Taken By: KB

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: _____

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

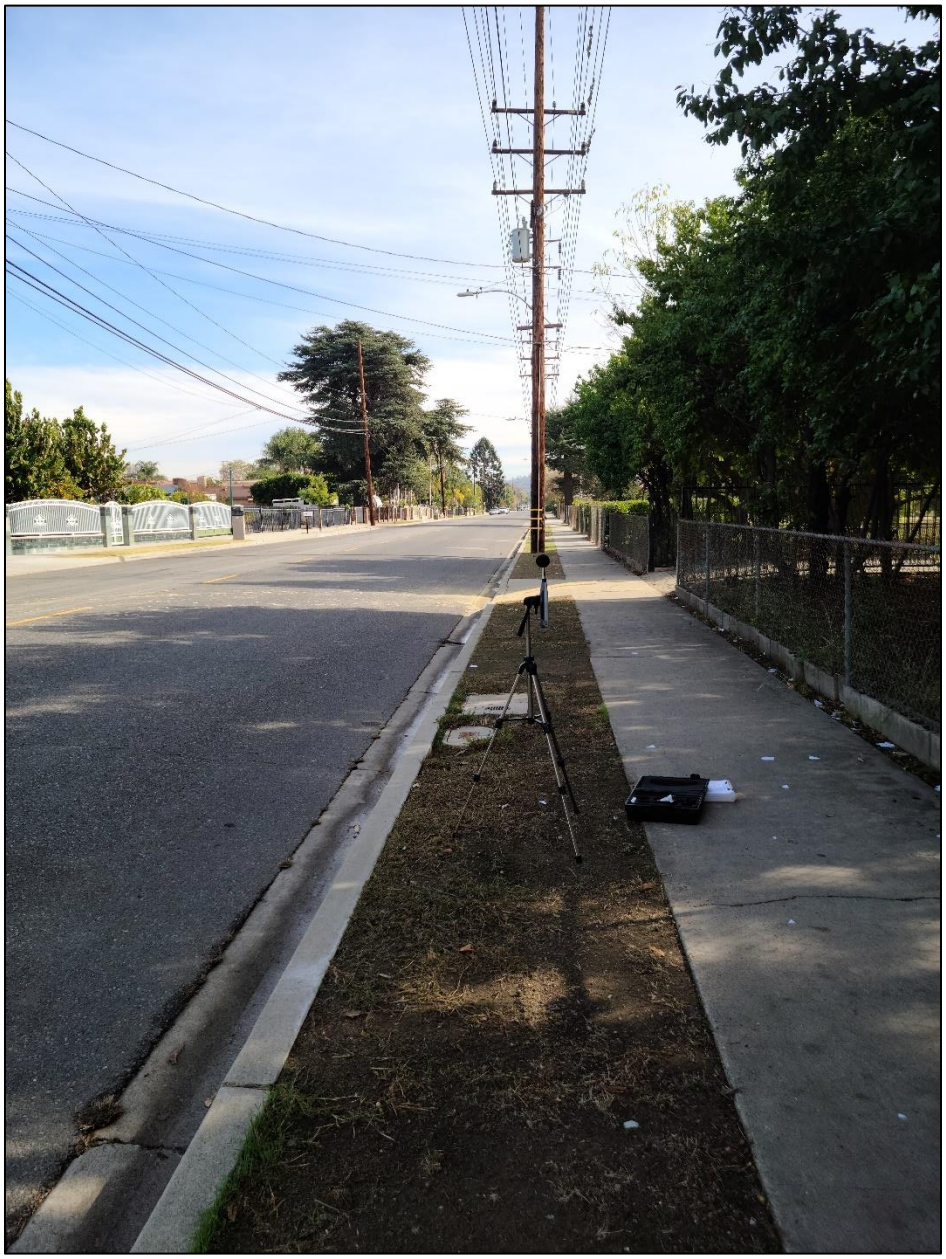
Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	52.4		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. Very low traffic, Plane fly over at ~~10:42~~ 7m
2. 52.5 at 10:43
3. Person playing radio, low plane flover at 9:20, at 9:54
4. Dog Barking at 11:44

Residence (16053 Francisquito Ave.)



624-704 Francisquito Ave._Site 3

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site-3
Start Time	1/7/2021 11:00:54 AM
Stop Time	1/7/2021 11:15:54 AM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	64.6 dB	Lmax	1	83.1 dB
Lmin	1	46.5 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

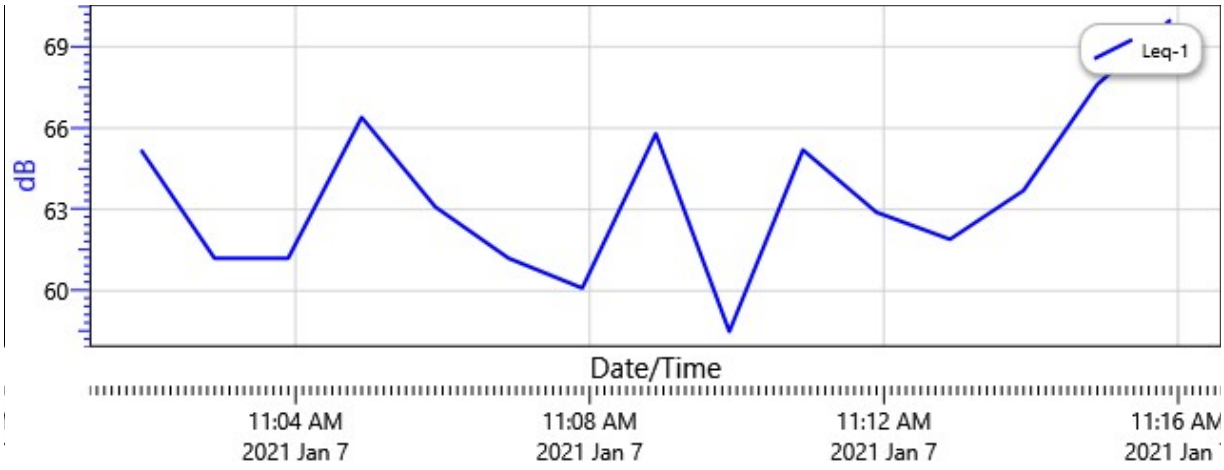
Logged Data Table

Date/Time	Leq-1
1/7/2021 11:01:54 AM	65.2
11:02:54 AM	61.2
11:03:54 AM	61.2
11:04:54 AM	66.4
11:05:54 AM	63.1
11:06:54 AM	61.2
11:07:54 AM	60.1
11:08:54 AM	65.8
11:09:54 AM	58.5
11:10:54 AM	65.2
11:11:54 AM	62.9
11:12:54 AM	61.9
11:13:54 AM	63.7

11:14:54 AM	67.6
11:15:54 AM	70

Logged Data Chart

642-704 Francisquito Ave._Site-3: Logged Data Chart



Noise Measurement Report Form

Project: 642 Francisco Ave Contract No (s): N/A

Date: 1-7-2021 Day of Week: Thursday Time: 11:00

Monitoring Site Number: 3 Monitoring Site Address: 16053 Francisco Ave

Measurement Taken By: KB

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: 15 min

Check the measurement purpose:

☐ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	64.7		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. Speed approx 35 to 40 mph
2. Landscaping in the distance
3.
4.

Residence (1422 Farndale Avenue)

624-704 Francisquito Ave._Site 4

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site-4
Start Time	1/7/2021 11:22:41 AM
Stop Time	1/7/2021 11:37:41 AM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	51.7 dB	Lmax	1	70.8 dB
Lmin	1	44.8 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

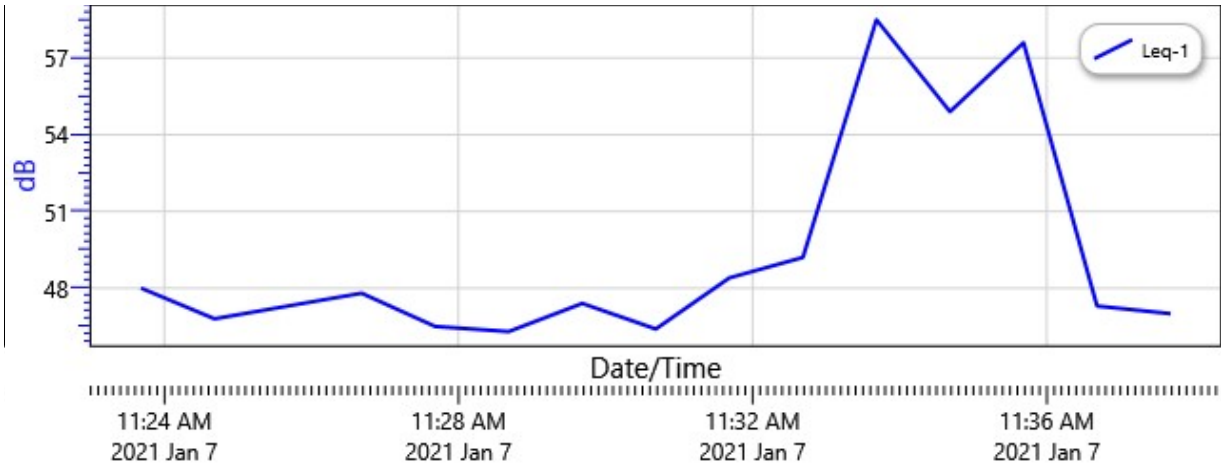
Logged Data Table

Date/Time	Leq-1
1/7/2021 11:23:41 AM	48
11:24:41 AM	46.8
11:25:41 AM	47.3
11:26:41 AM	47.8
11:27:41 AM	46.5
11:28:41 AM	46.3
11:29:41 AM	47.4
11:30:41 AM	46.4
11:31:41 AM	48.4
11:32:41 AM	49.2
11:33:41 AM	58.5
11:34:41 AM	54.9
11:35:41 AM	57.6

11:36:41 AM	47.3
11:37:41 AM	47

Logged Data Chart

642-704 Francisquito Ave._Site-4: Logged Data Chart



Noise Measurement Report Form

Project: 642 Francisquito Ave Contract No (s): N/A

Date: 1-7-2021 Day of Week: Thursday Time: 1122

Monitoring Site Number: 4 Monitoring Site Address: 1422 Farndale

Measurement Taken By: KB

Approximate Wind Speed: _____ mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: 15

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	51.8		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. Main noise is Francisquito Ave
2.
3.
4.

Residence (646 Alwood St.)

624-704 Francisquito Ave._Site 5

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site-5
Start Time	1/7/2021 11:43:29 AM
Stop Time	1/7/2021 11:58:29 AM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	48.8 dB	Lmax	1	63.6 dB
Lmin	1	45.2 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

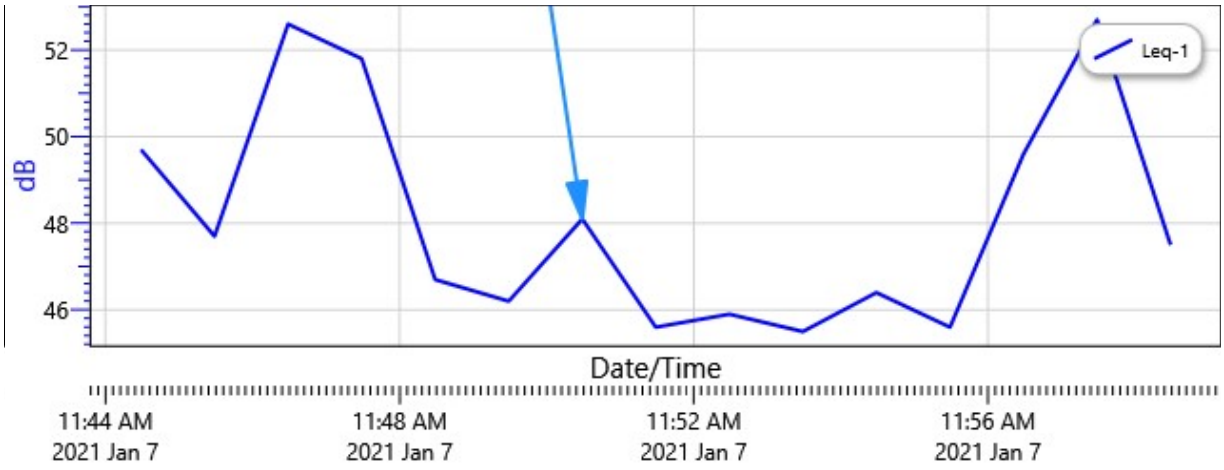
Logged Data Table

Date/Time	Leq-1
1/7/2021 11:44:29 AM	49.7
11:45:29 AM	47.7
11:46:29 AM	52.6
11:47:29 AM	51.8
11:48:29 AM	46.7
11:49:29 AM	46.2
11:50:29 AM	48.1
11:51:29 AM	45.6
11:52:29 AM	45.9
11:53:29 AM	45.5
11:54:29 AM	46.4
11:55:29 AM	45.6
11:56:29 AM	49.6

11:57:29 AM	52.7
11:58:29 AM	47.5

Logged Data Chart

642-704 Francisquito Ave._Site-5: Logged Data Chart



Noise Measurement Report Form

Project: 624 Franciscan Contract No (s): N/A

Date: 11-7-2021 Day of Week: Thursday Time: 1143

Monitoring Site Number: 5 Monitoring Site Address: 646 Atwood

Measurement Taken By: KB

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: _____

Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: 15

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	48.9		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. low traffic, woman talking on phone
2. Plane flyover
3.
4.

Residence (1417 Pricedale Ave.)

624-704 Francisquito Ave._Site 6

1/7/2021

Information Panel

Name	642-704 Francisquito Ave._Site-6
Start Time	1/7/2021 12:03:21 PM
Stop Time	1/7/2021 12:18:21 PM
Device Name	BGS100001
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	
Run Time	00:15:00

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	46.7 dB	Lmax	1	59.9 dB
Lmin	1	44.5 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	SLOW			

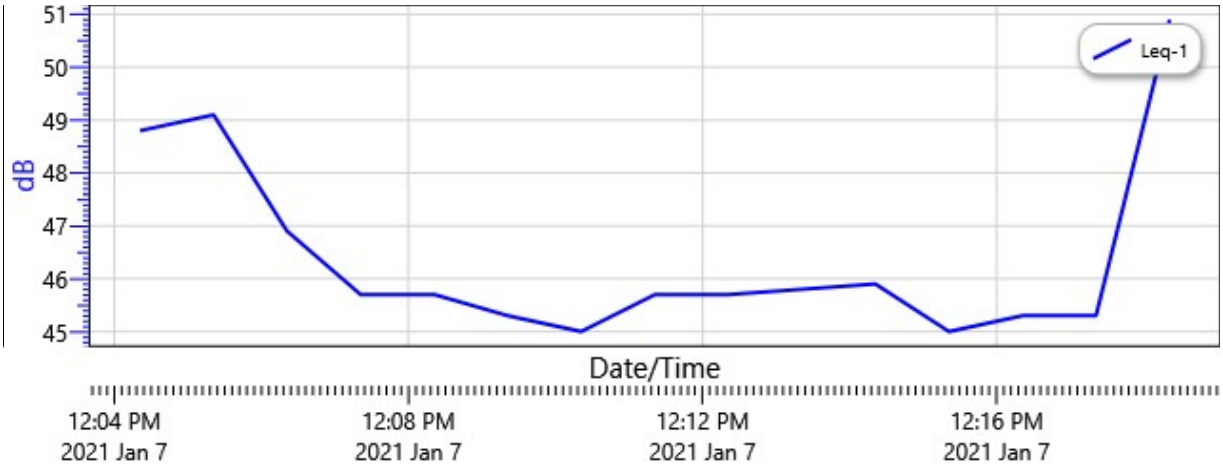
Logged Data Table

Date/Time	Leq-1
1/7/2021 12:04:21 PM	48.8
12:05:21 PM	49.1
12:06:21 PM	46.9
12:07:21 PM	45.7
12:08:21 PM	45.7
12:09:21 PM	45.3
12:10:21 PM	45
12:11:21 PM	45.7
12:12:21 PM	45.7
12:13:21 PM	45.8
12:14:21 PM	45.9
12:15:21 PM	45
12:16:21 PM	45.3

12:17:21 PM	45.3
12:18:21 PM	50.9

Logged Data Chart

642-704 Francisquito Ave._Site-6: Logged Data Chart



Noise Measurement Report Form

Project: 624 Fran Lisando Ave Contract No (s): N/A

Date: 1-7-2021 Day of Week: Thursday Time: 1203

Monitoring Site Number: 6 Monitoring Site Address: 1417 Princedale

Measurement Taken By: KB

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the _____

Approximate distance of Sound Level Meter from Receptor Location: 50 ft

Approximate distance of Sound Level Meter from Project Site: 350 ft

Receptor Land Use (Check One) ☒ Residential / Institutional ☐ Commercial / Recreational

Sound Level Meter: Make and Model: _____ Serial Number: _____

Meter Setting ☒ A-Weighted Sound Level (SLOW) ☐ C-Weighted Sound Level (FAST) for Impacts

Duration of Measurement: 15 mm

Check the measurement purpose:

☒ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	114.0	n/a	n/a
L_{eq}	46.8		
L_{max}			
L_{dn}			
CNEL			

Field Notes:

1. Cul de Sac, limited noise
2.
3.
4.

Appendix C

Traffic Assessment

1100 Corporate Center Drive, Suite 201, Monterey Park, CA 91754
T: (323) 260-4703 | F: (323) 260-4705 | www.koacorp.com
MONTEREY PARK ORANGE ONTARIO SAN DIEGO LA QUINTA CULVER CITY

TECHNICAL MEMORANDUM

Date: December 16, 2020

To: Teresa Li, Terry A. Hayes Associates Inc.

From: Brian Marchetti, AICP

Subject: Project Traffic Review – 642 West Francisquito Avenue, West Covina

---

KOA has prepared this traffic review for the proposed residential project at 642 West Francisquito Avenue in the City of West Covina.

Relevant CEQA and City Thresholds

The City minimum threshold requirement for traffic impact analysis with level of service and circulation review is 50 project trips during either the AM or PM peak hours. The project trip generation is estimated to be four to six trips during peak hours, falling below this minimum threshold.

As the project generates fewer than 110 trips per day, it is assumed to have less than significant impacts on Vehicle Miles Traveled (VMT) under City project screening guidelines related to the California Environmental Quality Act (CEQA).

Therefore, the project impacts on local area traffic circulation/level of service and VMT is assumed to be less than significant. The following sections summarize the project trip generation, parking supply, sight distance and queuing issues, VMT screening and construction impacts.

Project Description

The proposed project is located at 642 West Francisquito Avenue, at the southwestern edge of the City of West Covina. The project subdivides two parcels, totaling 5,018 square feet in area, into six lots-to facilitate the development of six single-family dwelling units. The parcels lie on the south side of Francisquito, between Ferndale and Craig Avenues. The proposed site plan is provided in Attachment A. Attachment B shows the project's location in the city of West Covina.

Project Daily Trip Generation

Trip Generation was calculated from the single-family-home land use rate (based on the number of dwelling units) in *ITE Trip Generation, 10th edition*. Table 1 summarizes the project's trip generation. The project would generate 57 vehicle trips a day, including four vehicle trips in the a.m. peak-hour (one inbound trip and three outbound trips) and six vehicle trips during the p.m. peak hour (four inbound trips and two outbound trips).

Table 1. Project Trip Generation

				Weekday						
				Daily	AM Peak Hour			PM Peak Hour		
ITE Code	Land Use	Intensity	Units	Rate	Rate	In	Out	Rate	In	Out
Trip Generation Rates										
210	Single-family home	-	d.u.	9.44	0.74	25%	75%	0.99	63%	37%
Trip Generation Totals-New Use										
210	Single-family home	6	d.u.	57	4	1	3	6	4	2
Total		**6**		**57**	**4**	**1**	**3**	**6**	**4**	**2**

Trip Generation based on number of beds but assumed to include trips made by employees and visitors to the facility.

Parking Analysis

The City of West Covina's Municipal Code requires the provision of four accessible parking spaces per single-family dwelling unit. Since the project will produce six single-family dwelling units, it must provide 24 spaces according to Code requirements.

Land Use	Unit	Intensity	Municipal Requirement (per unit)	Total Required
Single-family Home	d.u.	6	4	24

Sight Distance

The project has three driveways connecting to Francisquito Avenue. Sight distance conditions at each of the project driveways were analyzed based on standards in the Caltrans Highway Design

Manual. The roadway has a posted 35 mile per hour speed limit. The photos below provide views of typical sight distance for a vehicle, for both directions of Francisquito Avenue, at each location.

Views to left (west) and right (east) of project's western driveway

Views to left (west) and right (east) of project's middle driveway

Views to left (west) and right (east) of project's east driveway

The Highway Design Manual, in Table 201.1 Sight Distance Standards, defines the sight distance for roadways based on design speeds. Based on the 35 mph speed limit on Francisquito Avenue,

the design speed would be 45 mph. The stopping distance related to the 45 mph speed is 360 feet.

From the project's west and middle driveways, the 360-foot distance would not be blocked by any major obstructions. Utility poles on both sides of the driveway are at an adequate distance that permits a clear line of sight for stopping distance. The pole to the west of the east driveway is within the line of sight, but it is not wide enough to completely prohibit visibility.

The project trip generation is not expected to significantly increase with the proposed uses. Therefore, the driveway on Francisquito Avenue will operate in largely the same manner with the project as it does under existing conditions.

Vehicle Miles Traveled

Prompted by the state of California's adoption of Senate Bill (SB) 743, recent changes to Section 15064.3 of the CEQA Guidelines mandate that local agencies use vehicle miles traveled (VMT) as a criteria in determining transportation impacts. The City of West Covina Transportation Study Guidelines provide "screening criteria" for the VMT analysis, exempting projects that are anticipated to produce low VMT. One of these criteria precludes analysis for land uses that generate fewer than 110 trips per day. As the project only generates 57 trips per day, it is considered to have less than significant VMT impacts.

Construction Trips

Construction is anticipated to commence in October 2021 and conclude in late 2022, with a complete time frame of 10 to 12 months. Construction activities entail demolition of the existing structures on Lots 5 and 6 and construction of the new dwelling units.

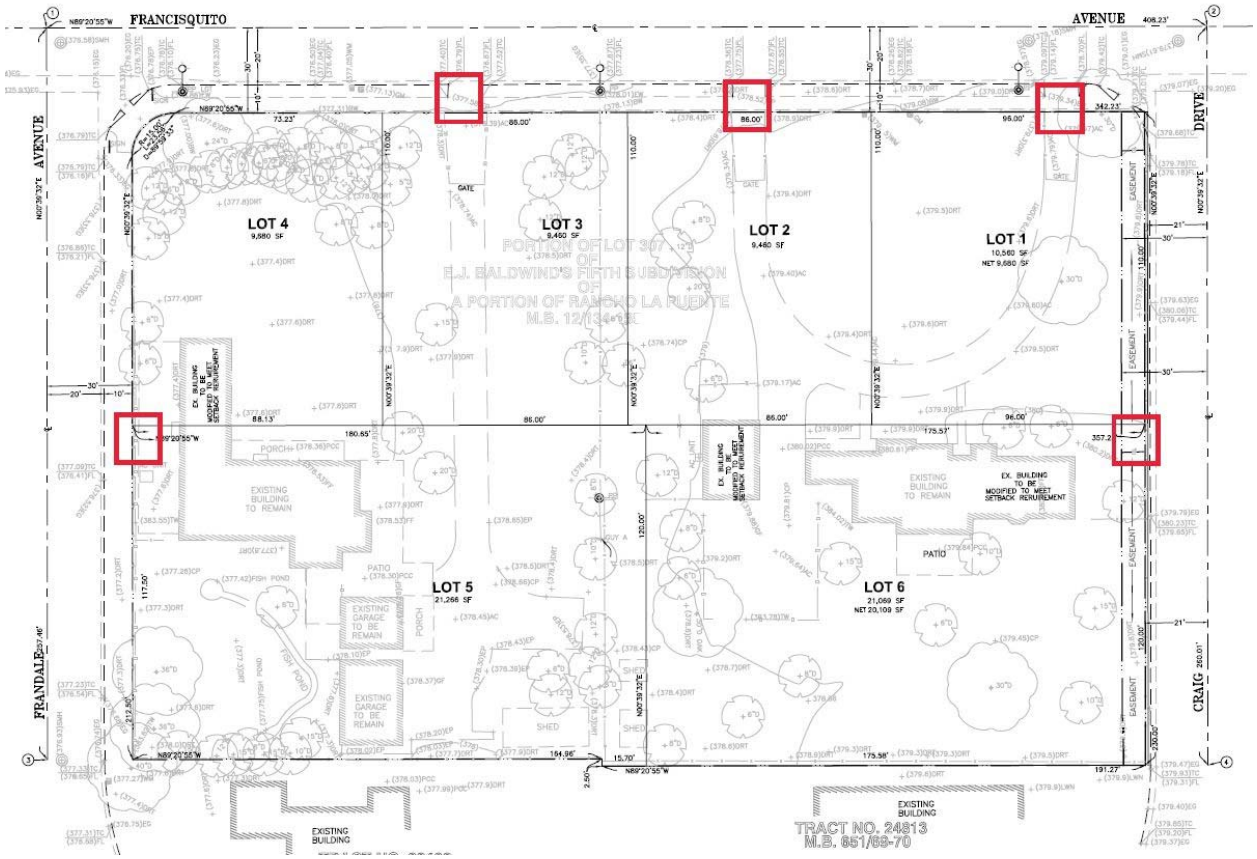
Demolition of the existing buildings is estimated to take approximately one week to complete. Site preparation is expected to last approximately one week, grading activities are expected to take approximately two to three weeks, and building construction is anticipated to take approximately nine to 11 months to complete.

Light-duty pick-up trucks (half-ton pickup trucks) will be used to haul materials during construction. The vehicles will access the site via the existing driveways on Francisquito Ave. Staging would be on-site.

Construction would occur six days a week. In accordance with Section 15-95 of the City of West Covina Municipal Code, construction activities would be limited to the hours between 7:00 a.m. and 8:00 p.m. daily.

Attachment A

Site Plan



Attachment B

Project Area Map